TOXICS DISPATCH

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Toxics Link
for a toxics-free world

MERCURY IN DENTISTRY

Worldwide, dental mercury has been recognized as an important source of mercury release into the environment. According to UNEP, a total of 260 to 340 tons of mercury is annually released into the environment from the use of dental amalgam globally. This represents some 10% of global mercury consumption which is around 4070 tonnes (UNEP global mercury assessment, 2013), thus being among the largest consumer uses of mercury in the world (UNEP 2008). The amount of mercury released into the environment from over 800,000 US dental offices is estimated between 0.04 and 0.2% of the total worldwide environmental mercury pollution from all sources. The annual cost to the dental industry of reducing one ton of potentially bio available mercury is about US 273 million dollars to 1.2 billion dollars.

Dental fillings are supposed to be one of the important sources of exposure to elemental mercury in people having amalgam fillings. Chewing as well as hot food can trigger release of mercury vapor from dental fillings. Very small amounts are slowly released from the surface of the filling due to corrosion or chewing or grinding motions. Part of the mercury on the surface of the filling may enter the air as mercury vapor or be dissolved in the saliva.

Although the relative health risks due to direct human mercury exposure from amalgams are still being debated, the significant releases to the environment of dental mercury in waste and through other pathways, as well as its persistence once it reaches the environment, are well established. It includes exposure to soil via wastewater sludge to land disposal, burial of the deceased persons with fillings, atmospheric deposition following cremation or wastewater sludge incineration etc and also to the atmosphere via cremation etc.

The estimated annual use of mercury in the dental sector in India is 65 tons

Indian Scenario

In recent years composites have largely replaced mercury fillings, the estimated annual use of mercury in this sector in India still stands at around 65 tons, where 49 tons gets into cavities and 16.2 tons is mostly thrown into the environment as non-contact amalgam, and ends up majorly in water bodies (Mercury in Our Mouth, Toxics Link, 2012). The estimated annual mercury release due to removal or replacement of old fillings (contact amalgam) is 66 tons. This amount mostly ends up in municipal bins and thus soil and groundwater. These two mediums are also rich in micro-organisms responsible for methylation of mercury. It is estimated that India releases around 1.4 tons of mercury annually from mercury fillings during cremations. The total mercury air emissions from contact amalgam, non-contact amalgam and cremations come to around 14 tons. Additionally, about 1ton of mercury is released into waste waters annually due to leaching from amalgam fillings of the Indian population.

India is now a signatory to the Minamata Convention. Toxics Link undertook a study of selected dental colleges and dental practitioners to examine the preparedness of the Indian dental sector to align with the convention. Based on the primary and secondary data collected and subsequent

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EDITORIAL

Mercury amalgam continues to be used extensively in India in dental practice despite the fact that it is recognized as one of the most toxic metals known to mankind. Many practicing dentist in India strongly believe that mercury is one of the most appropriate substance for dentistry and are willing to go that extra mile to defend its usage. Dentistry perhaps consumes highest quantities of mercury in India while all other sectors have made efforts and progressively reduced the use of mercury. Important to bring out that there are proven and good alternatives to mercury amalgam and many young dentist in India use these alternatives but these numbers are few. It is important and critical to, encourage and promote the use of alternates in dentistry for the benefit of dental workers and the environment.

Recognistion of mercury as a global pollutant by the world body brought the nations together to draw up a legally binding instrument to address the concerns of mercury. The Minamata convention was finally adopted in 2013 and signed by 128 till date, India is also a signatory to this treaty making it responsible for initiating several actions. Strangely though there is no visible action or a national plan in place to address issues related to mercury.

There is an urgent need for a comprehensive strategy and a plan to progressively reduce the usage of mercury and completely phase it out, also an urgent requirement to stop the usage of mercury on vulnerable populations that include children and pregnant women. State and national dental associations should initiate and encourage shifts in practice and not wait for government action.

Mercury management across various sectors is an urgent national need and requires multiple and coordinated actions on part of various actors which must be put in place to protect human health and environment at large. There is also serious inadequacy in the level of information on Mercury among citizens which require attention.

— Satish Sinha,
Associate Director

The total mercury air emissions from contact amalgam, non-contact amalgam and cremations come to around 14 tons

analysis, following issues in the dental sector got highlighted:

1. Lack of awareness: There is very low awareness among the common people as well as the dentists to our surprise about the issue of dental mercury and its harmful impacts. According to the survey, most of the dentists don't share the information about harmful impacts of mercury with patients. This leads to patients having no choice to opt for mercury free alternatives. There are only few dentists available who take this initiative to explain the pros and cons of mercury and mercury free fillings and it is also observed that if explained properly, most of the patients opt for alternatives over amalgam fillings.
2. Change in amalgam usage trend: It was also observed that most of the young dentists are pro alternatives and do not prefer amalgam to be used as filling material. When tried to investigate about the reason for this trend change, it became clear that this is not just because of financial aspect of alternative fillings being costlier than mercury one but also that they understood the environmental and health impacts of mercury. In contrast, most of the older dentists still favor mercury based amalgam fillings and don't acknowledge any of its impact of dental mercury on health or environment.
3. Difference between rural and urban scenario: Another fact which highlighted the difference between usage pattern of amalgam fillings in urban and rural set ups is that according to most of the dentists, alternatives are lesser used in rural set ups. One of the reason given was that the condition of tooth in rural populations is much poor than in urban ones due to tobacco chewing habits. This makes it difficult for dentists to go for fillings through alternatives among them.
4. It was quite clear from the findings that there is an impact over vulnerable populations like pregnant women and children especially below 12 years of age. Most of the dentists with pro alternatives approach accepted that there is significant impact on mental and physical health of pregnant women & her womb as well as children below the mentioned age. They also acknowledged the need of mandatory policy on ban on mercury fillings among this population.
5. As far dental associations are concerned, the issue of mercury is not given much importance among dental fraternity which makes it important that such kind of discussions are required on a national as well as regional level. The myth of dental mercury having no or least impact can only be removed by spreading more and more awareness, development of national guidelines on its usage and

initiatives taken by dental fraternity and Government.

To address most of the above mentioned issues, government authorities as well as dental fraternity must come together to move forward mercury free dental healthcare initiative in the country. One of the primary steps which should be initiated soon for that is resist usage of mercury based fillings among pregnant women and children as the future of our country depends on the younger generation.

Mohit Bhatia
mohit@toxicslink.org

MAGGI BAN: A WAKE-UP CALL FOR FOOD SAFETY IN INDIA

Food safety is an important priority of the Government of India. To deal with growing challenges from market economy and tremendous growth of the food industries, India overhauled the food safety administration and a new Food safety Authority has been established by the Central Government with the adoption of new Food safety Authority Act 2006. Apart from this, series of new regulations have been put in place to streamline the food safety management in India, and one of the most important regulations adopted is "Food Safety and Standards (Contamination, Toxins and Residues) Regulations, 2011 to restrict chemical presence in food items. The regulations have stringent standards for wide range of chemicals such as DDT, Dicofol including heavy metals like Lead, Mercury and Cadmium, Nickel, Chromium and Arsenic. These standards are within the permissible range and vary from food to food; like for most of the food content the prescribed limit for Lead is 2.5 PPM, Mercury is 1 PPM for all foods and for fish is 0.5 PAP, Cadmium 1 PPM , Nickel 1 .5 PPM and so on. The basis of Maggi ban was due to the presence of Lead above permissible limit prescribed under this regulation.

Instances of Food Contamination in India

Maggi controversy has created a stir all across the country and raised eyebrows on the food safety in India. However, the issues surrounding chemicals content in the food is not a new phenomenon in the country. There are numerous studies done in India that highlight contamination of vegetables from chemicals and heavy metals. Toxics Link conducted the heavy metals study of the vegetables sold in Delhi market in 2003 and found most of the vegetables sold in Delhi market to be contaminated with heavy metals.[1] Similarly the study conducted by The Energy and Research Institute (TERI) in 2012 found high concentration of heavy metals in the vegetables grown along the flood plain of Yamuna river. [2] An academic study done on heavy metals accumulation in fishes in Andhra coast found heavy metals including Lead, Cadmium and Mercury much above the permissible limit prescribed by the regulations.[3] Similarly numerous studies done in India have also highlighted the tress pass of the banned pesticides and chemicals including DDT in food items. Incidentally the National Green Tribunal has banned cultivation of vegetables along the polluted stretch of the river in Delhi due to high content of heavy metals.

Maggi Controversy: Regulatory Challenges

After the Maggi issue surfaced from very unknown place "Barabanki" in Uttar Pradesh, many states across India followed the suit and finally the Central Food Safety Authority put a carpet ban on the sale of Maggi all across the country as it was found to be hazardous and unsafe for human consumption. However, recent verdict of the honorable Mumbai High Court on the issue of Maggi has put a question mark on the overall functionality of the regulatory agencies. The court also ruled that the_Principles of natural justice have not been followed in announcing the ban. Most importantly there is a wide variation on the level of lead content in Maggi from state to state. Further Maggi claimed that no lead was detected in the samples tested in US and UK lab. The Mumbai High Court has issued an order for the fresh testing of the samples.

The controversy has also put the regulatory agencies in a tight spot. Questions arise such as how competent are the food safety agencies in India to handle the overall food safety crisis in the country. As per the food safety act, the food safety issues are joint responsibilities of the state and central governments. As almost eight years have passed after setting up the authorities, there is a need to have the reality check on the infrastructure, laboratory and human resources in place to regulate the burgeoning food industries in India. Most importantly, as the states have to play a key role in implementing the regulations, adequate attentions are required to upgrade state level infrastructures, so that they can have a fare dealing in implementing the food safety regulations.

Wake-up Call

The food industry is one of the fastest growing sectors in India, which is a key socio-economic driver in the country. However with the liberalization policies, the package food industries have witnessed a phenomenon growth in the country. At the same time the synthetic chemicals have become an integral part of these package foods. Further, the growing water, air pollution, and pesticides use, have been contaminating the food chain from the farm to the table. In this scenario, health of crore of citizens of the country need to be prioritized. Thus role of the food safety regulators are very critical as their actions will have an overall impact on health of the citizens as well as on the socio-economic aspects of the country. Hence it is high time to strengthen the food safety authorities with sound infrastructure in place across the country considering the food safety as well as food security of the nation.

Piyush Mohapatra
piyush@toxicslink.org

1 http://toxicslink.org/docs/06102_Finding_of_Heavy_Metal_Contamination_of_Vegetables.pdf

2 http://www.thehindu.com/news/cities/Delhi/the-yamuna-is-poisoned-and-so-are-your-vegetables/article2891778.ece

3 http://www.researchgate.net/publication/276290217_Human_health_risk_assessment_of_heavy_metal_accumulation_through_fish_consumption_from_Machilipatnam_Coast_Andhra_Pradesh_India

CONNECTING CHILDREN WITH ENVIRONMENT AT AN EARLY AGE

This article examines how strategic communication models can help teachers influence students of elementary classes develop connectivity with environment.

Introduction-Climate Change

Whichever part of the globe we live in, we all have started feeling the brunt of Climate Change. Some regions are witnessing extreme weather conditions, others are experiencing rise in temperature, while still others have erratic spells of rain, tornadoes, thunder shower or even dusty storms. Many scientists believe if we continue with our existing lifestyle, Climate Change will eventually make our earth completely unlivable; there will be rise in sea level, glaciers will melt, floods will be devastating, many rivers will dry out, monsoon will become extremely erratic and there will be frequent draughts. All of these will eventually lead to widespread diseases, migration, congestions and conflicts, which will be devastating for humans or any other form of life on earth.

In retrospect, one can see that these changes have greatly intensified over the past 60 years or so. Such widespread impact on climate in such a short period of time (if compared to the changes in climate brought over by thousands of years in the past) very clearly suggests that the whole mankind became callous towards environment during that time period, and to reverse or to slow down the impact would require a collective effort by the whole mankind, whichever profession or region they belong to.

Environment Education

Environment Education (EE) has come up as a solution to build informed and aware future generation. It is believed that EE will infuse understanding on the importance of environment among students so that the upcoming generation carries this connectivity, en-masse. In India environmental issues have been taught in classes since long time back however, experts believe that environment education as such took a formal shape in 1990s in the name of Eco-Clubs and got a boost in 2001 when National Green Corps (NGC) program came into force. Currently there are about 1 lac Eco Clubs in schools across the country and each of these clubs has 30-50 school students as members[1]. They undertake various environment related activities and spread awareness among peer groups and the whole community. Besides NGC, there are several non-profit initiatives that are building capacities of teachers on how to make students aware on environmental issues and engage them to face local environmental challenges.

The eco-clubs or for that matter the non-profit initiatives mostly focus upon the mid-junior students. Some of them do undertake initiatives for the elementary students, but a systematic approach in instilling pro-environment attitude among them at early age seems to be given less importance. Over here it should be noted that scientifically it has been proved that likes and dislikes, tastes, etc, in a person starts forming at a very early age, and if teachers/schools start focusing on how they connect school children with environment at an early age, it will be easier for them to establish firm connectivity as they grow up.

Approach of classical conditioning

One of the tools that may help grooming children at an early age is the classical conditioning model. Even though one finds it in the curriculum/books of prospective teachers, the model/theory is not very popular in the education sector. The model was initially developed by a Russian Nobel prize winner named Ivan Pavlov. His theory became popular as well as controversial. Over the years however, it has been modified and its application is extensively used in communication campaigns. The theory does not set any rule, but it does give an insight into human psychology.

In simple terms the crux of classical conditioning is somewhat like this. In normal circumstances we naturally respond to any product or an incident that we see. For instance if we see food our senses naturally relate it with eating. The model terms them "unconditional stimuli" or in simple terms we can call them natural stimuli. The model states that if an artificial stimulus (technically "conditional stimulus") is added to the natural stimulus, it has a long term impact on how the person responds to that natural stimulus[2]. Initially experiments were done in animals (in fact the theory originated by observing animals) but in later years they were also conducted with a child. Animals such as rat, rabbits, etc, were introduced and the child responded playfully with them. However, when a loud sound was consistently made with a hammer whenever he would see those animals, the child started developing fear of them and eventually even when there was no loud sound of the hammer, the child used to start crying seeing the animals[3]. The experiment became very controversial and still is, but it did show that if a negative or positive external element is added persistently with the natural stimuli, it has a long term impact on the positive or negative disposition of the person, especially children. There have been further research by psychologists based on the original model and concepts such as "operant conditioning"/ "unconditional reinforcers"/ "conditional reinforcers" have been developed for those elements that become associated with the natural stimuli, and reinforce/reduce the impact[4].

The model is very widely used in the communications sector, especially in campaigning of products and ideas. For instance in anti-drugs campaign, graveyards or skeletons are shown as negative stimuli (here it may be recalled when cigarettes were not considered harmful, stimuli indicating manhood, power, etc, where attached to increase its popularity).

1 http://www.moef.nic.in/division/national-green-corps-ngc

2 Dennis Coon & John Mitterer, 2015 Edition; "Introduction to Psychology, gateway to mind and behavior"

3 http://www.simplypsychology.org/classical-conditioning.html

4 Pressley M. & McCormick C., 2007, "Child and Adolescent Development for Educators"

Elementary education & application of classical conditioning

Many schools have introduced environmental issues in their early curriculum however they have their own ways of teaching the elementary class students. For instance, some public schools in the metropolitan cities make their classes children friendly by introducing games related to wildlife, or sketching animals, or reading out stories, while some schools do not take elementary classes seriously and let the children play on their own. In smaller towns and cities teachers become harsh in trying to discipline children or making them understand something.

Most of the teaching tools such as games, sketching, etc; personality of teachers and their style of teaching; and the classroom ambience (infrastructure, decorations, etc) act as external stimuli to the children and add or negate to the child's attitude towards environment or for that matter any other subject. In order to build pro-environment feelings, environmental issues need to be added and the tools or all the external stimuli need to be used effectively so that it evokes positivity among them. For instance reading story books of animals may be made more interesting in the class; indifferent teachers may be made aware of the fact that students get bored which may impact their attitude towards that subject in future; harshness for discipline is another negative stimulus for children.

Though most of the school administrators and teachers are aware of how to develop positivity among students, examining their tools and their style of teaching through conditioning theory will help in providing deeper insights into their students' mental development, which can be further used to enhance positivity towards environment at an early age.

Samir Prasad
samir@toxicslink.org

PLASTIC RECYCLING: INDIA VERSUS EUROPE

Plastics are one of the most widely used materials. While their use is rather stable in higher-income countries such as found in Western Europe, India is witnessing a rapid increase in plastic consumption. Due to the short lifespan of many plastic end-uses, increasing consumption is closely linked with rising volumes of waste, which can cause several health and environmental problems, such as land and water pollution due to littering, or hazardous emissions caused by unsound landfilling, incineration and recycling practices (some plastics contain hazardous additives such as brominated flame retardants and heavy metals that can leach during those processes). If properly done, plastic recycling can be seen as one of the most important actions to reduce negative impacts of plastic use. However, a number of technological, regulatory and economic challenges hinder high plastic recycling rates, so that globally only about 10% of plastic wastes are recycled, with large variations between countries.

Despite having good waste collection and treatment systems, most plastic waste is landfilled (40%) or incinerated (35%) in European countries. Cost-effective sorting and recycling is limited to a few types, such as PET and HDPE. Lack of effective technologies and/or of markets for secondary plastics limit recycling for other plastic waste streams. Furthermore, due to stringent regulations and standards, potentially hazardous plastics are diverted from recycling to be destructed in controlled incinerators.

In contrast, it is estimated that 60-80% of plastic waste is recycled in India, mostly in the informal sector. Such high rates can be largely explained by the existence of a market for cheap, low-quality, plastic products, and by the availability of abundant, cheap and skilled labour. While such rates are admirable, the lack of control can lead to cross-contamination of recycled plastics, which can potentially harm humans and ecosystems. Studies by Toxics Link revealed the presence of hazardous substances such as brominated flame retardants and heavy metals in recycled plastic products, sometimes at concentrations much higher than allowed by Indian and international standards. Furthermore, plastic that cannot be cost-effectively recycled remains littered and contributes to land and water pollution.

How can we reach a "best-of-both worlds" situation, where high plastic recycling rates, such as found in India, are compatible with safe rules and standards to ensure protection of humans and other living species? Answering this question is one of the objectives of the Swiss-funded Sustainable Recycling Industries programme (SRI), in which Toxics Link is engaged as a local expert. To read more about the SRI programme, log on: http://sustainable-recycling.org

Arthur Haarman
arthur.harman@empa.ch

MEETINGS WITH DENTAL COUNCIL OF INDIA

Awareness Workshop for Dental Professionals

Toxics Link conducted an awareness workshop on dental amalgam for professionals at Dr. R. Ahmed Dental College, Kolkata on 27th of March, 2015. Normally most dentists opt for amalgam filling owing to the longevity of filling material and the ease of doing the same. The workshop was a huge success in instilling the negative impacts of amalgam filling, and most of the dentists agreed to put up posters in their private clinics to increase public awareness so as to increase the demand for alternative restorative materials. Besides, they also acknowledged the need for curriculum changes in the BDS syllabus.

Most of the dentists present in the workshop were ready to put up posters in their private clinic to increase public awareness and resultant demand for the alternative restorative material.

Awareness workshop on Bio-medical waste & mercury toxicity in Haldwani, Uttarakhand

Owing to the success of our earlier Training of Trainers in Dehradun for the medical officers from Garhwal region, the Department of Health (DoH), Uttarakhand showed interest in organizing similar kind of workshop for the same target groups of Kumaon region. The workshop was organized in Haldwani, on 19th May, 2015 and Toxics Link was invited by the DoH, Uttarakhand as the technical partner of the workshop. Our regional partner, Navjyoti Development Society (NDS) was also an integral part of the programme.

All the Medical Officers (MOs) and Chief Medical Officer (CMO) of Udham Singh Nagar attended the workshop. The programme went well with focus given on various aspects of medical waste management, handling & disposal of mercury from the healthcare sector. The programme ended with an interactive session with the participants, which included discussions and suggestions on issues they are facing.

National Conference on Waste to Energy

Toxics Link conducted a national conference on Waste to Energy on 30th March 2015 at India Habitat Centre, New Delhi. The conference focused on the viability of the waste to energy plants in the context of India. Mr. Ravi Agrawal, Director, Toxics Link in his inaugural speech pointed out that the engagement with people is not much and public debate is very narrow on the issue of Waste to Energy. Capacity building of Municipal Corporation is also lacking. He stressed on reducing overall health environment risk from waste. He also highlighted other issues such as: Exploring options for putting big centralized plant to reduce overall exposure throughout the waste chain; waste hierarchy and different ways of collecting waste should also be in place; increasing dioxin efficiency, reducing centralized way of emission control, waste profile data are all needed to be worked out and effect of multiple exposure sites like dump site, recycling site, segregation site on environment and health should also be reduced. Special address was made by Dr. Dieter Mutz, Director, GIZ, where he shared experience of Germany on developing waste policy and compared with the Indian scenario. Dr. Mutz briefed about the various technologies available for Waste to Energy and their viability in the Indian context. Technical details, preparedness of SPCBs, Industrial stand on the issue were also discussed and presented during the conference. The conference was attended by officials from ministry, municipal corporations, State Pollution Control Board, academicians, industry representatives, EU delegates and NGOs.

Workshop on E-waste 'Systems Failure: Time to Reboot'

It has been 3 years since the E-waste Rules came into effect, but this toxic waste is still polluting our air, water and soil. The rules were meant to improve e-waste management in the country, but not much has changed on the ground, as waste still flows in the informal sector and is managed in an unscientific manner. Is it because of some gaps in the rules or have the regulatory agencies been lax? Are there gaps in collection mechanism or lack of awareness among the general public is the reason behind mismanagement of e-waste?

To find answers to some of these critical questions, Toxics Link organized a day long workshop on 'Systems Failure: Time to Reboot'. The workshop aimed at engaging different stakeholders to understand the current gaps and challenges in successful implementation of the Rules and chart out concrete suggestions to change the situation. The meeting had more than 60 participants including manufacturers, recyclers, industry association, consultants, participated in the meeting.

They key recommendations that emerged from the workshop were:

- Producer consultation before fixing the targets
- Recycling standards to be framed for improved recycling facilities
- Third party certification for recyclers
- Customs to be made a stakeholder in the e-waste rules
- Online authorization and registration process
- Stringent penalization process

Conference of the Parties to the Stockholm Convention on Persistent Organic Pollutants

The seventh meeting of the Conference of the Parties to the Stockholm Convention on Persistent Organic Pollutants (POPs) (SC COP7) was convened from 4-15 May in Geneva, Switzerland. Over 1000 participants attended the meetings. Negotiations focused on convention-specific issues such as the listing of new chemicals under the Stockholm Conventions.

Some of the key developments of the meeting were:

- HCBD and PCN are listed in Annex A & C as new POPs in Stockholm Convention without any exemption.
- PCP and its salts & esters are listed in Annex B with specific exemptions for the production and use for utility poles and cross arms for a minimum period of ten years.

Microsoft Create to Inspire – Partners Training Program

Toxics Link under the "Create to Inspire" program supported by Microsoft conducted training for its partners on 10 June, 2015, at its office. The program through its partners has a reach in 11 states across India; some of the states are Bihar, Rajasthan, Chattisgarh, Madhya Pradesh, Uttar Pradesh, Orissa, among others. The training was to build capacities of the partners on different environmental issues such as energy, water, and to enhance pedagogy and 21st century skills.

Stakeholders meetings on "Lead Safe Paints in India"

Stakeholders meetings on "Lead Safe Paints in India" were held in June in two cities -Mumbai and Jaipur. The meetings witnessed over 100 participants from government sector, paint industry, pediatricians, academicians, consumer organizations, NGOs and media. In addition, the second paint testing report under the Lead Paint Elimination Project was also released in Mumbai, Hyderabad and Delhi simultaneously. More than 25 media houses covered the events.

Awareness workshop for students on World Nature Conservation Day!

Toxics Link conducted students' awareness workshop on "Pollution in Yamuna River" organized by Nehru Learning Centre for Children & Youth, at Teen Murti House New Delhi, on 28 July, 2015. Over 50 students from NP School participated in the workshop which included film viewing, presentation, and a question answer session. The objective of the workshop was to show them the bad condition of Yamuna through pictures and films, and help them think how they can spread messages into the wider community to reduce the pollution level. As suggested by students, some of the ways through which this can be done are - by taking pictures and uploading on their school's Facebook page, writing about the condition of Yamuna to their eco-club teachers so that the issue can be taken forward, and by urging their friends and others to minimize waste generation and to throw at right places.

Vikalp Sangam workshop in Ladakh

Toxics Link participated in Vikalp Sangam workshop held at Leh from 19 July -24 July, 2015. Vikalp Sangam is a conglomeration of various stakeholders that provides platform for sharing experiences and discussing with the community members, NGOs officials and other stakeholders, for a sustainable model development of Ladakh region. Toxics Link expert deliberated on various issues of waste and highlighted the need of an urgent action to mitigate the challenges emanating from waste in the region

LETS AIM, ASPIRE, INSPIRE AND MOTIVATE, FOR A CLEANER AND GREENER INDIA!

Early 2015 all the existing waste management Rules in the country were revised and the government was seeking for more public consultations and comments. These Rules included Municipal Solid Waste, Bio-Medical Waste, E-waste, Plastic waste and Hazardous waste.

The Municipal Solid Waste caught my attention more than any other Rule, because this Rule applies to each and every citizen of this country. Waste has been an integral part of our existence, as long as we exist we generate waste, but still want to be disassociated with it and not talk about it. The new Rules have a vision: they want each of us to do our duty of segregating our waste into bio-degradable, recyclable, garden, construction and hazardous waste, to make better management a reality.

Everyone from households to municipal bodies and Pollution control boards have been envisaged to be working collectively to achieve the goal of Swachh Bharat.

Last year we were attending a meeting where experts from various European countries had been flown in to present their decentralized solid waste management models. I felt bad, because I know of many excellent models and equally competent experts from almost all the states in the country.

We all appreciate and go on talking in length about our experiences of a clean Dubai, Singapore or for that matter Europe, but when it comes to India we all have a lackadaisical approach. Some cliché that come up are- "there is no political will; illiteracy, population, become full blown topics and over shadow any discussion and we blissfully soak ourselves in the category of the very few *who care*.

People, who really care, now have a chance to show they do. Segregate your waste at source. Teach and motivate people around you to do the same thing. Help set-up composting pits in the nearest available land and seek help from local authorities. This seems to be the biggest hurdle but the new rule has provisions to help overcome these. Work with the local waste picker who would get cleaner recyclable waste and compost to sell and thus be interested in working with you.

Lets AIM- Aspire, Inspire and Motivate, for a cleaner and greener India, let all of us make it a national movement and manage waste as close to the location as possible.

Anu Agarwal
anu@toxicslink.org

E-WASTE – FREQUENTLY ASKED QUESTIONS

Q: What is E-Waste and why is it growing at such a fast pace?

A: E-Waste is a popular informal term for consumer and business electronic and electrical equipment that are damaged or obsolete and have reached the end of its useful life. It is the fastest-growing type of waste worldwide. According to United Nations estimate, the world produces up to 50 million tons of e-waste per year.

India is estimated to generate around 1.7 million tons of E-waste annually.

Electronic and electrical devices are now being made with planned obsolescence, meaning that the producers are making products which have limited life span. So, if you had used your earlier phone for around 4-5 years, the current change in technology is forcing you to discard your new phone in 1- 2 years. Similar is the case for other electronics like computers, laptops, tables and televisions, etc. This planned obsolescence is resulting in higher e-waste generation.

The increased consumerism and purchase power is also a big factor.

Why should we be concerned?

E-waste contains more than 1000 different substances, many of which are toxic, such as lead, mercury, arsenic, cadmium, selenium, hexavalent chromium, and flame retardants. If this waste is not handled properly or is disposed in landfills, the toxic materials can gain entry into surrounding soil, groundwater and ultimately harm us.

In India, this waste is primarily recycling in the unorganized sector, with no health and environment safety norms in place, resulting in extensive damage to human health and environment.

Why should E-Waste be recycled?

Electronic products are made from valuable resources and highly engineered materials, including metals, plastics, and glass, all of which require energy to mine and manufacture them. Some of the devices contain valuable and precious metals like copper, gold and silver and also extremely rare metals which are fast getting depleted from earth. Reusing and recycling consumer electronics conserves our natural resources and avoids air and water pollution, as well as greenhouse gas emissions that are caused by manufacturing virgin materials.

Creating secondary raw materials through recycling results in huge energy savings .For instance, recycling steel into secondary raw material uses 74% less energy than the production of the primary product. Recycled Aluminum uses 95% less, Copper 85% less, Lead 65% less and Plastics 80% less energy.

Clean recycling in authorized units can mitigate the recycling concerns of the unorganized sector.

Is there an E-Waste policy in India?

E-waste rules were notified in 2011 and came into effect from May 2012 in India, under the Environment Protection Act, 1986.

What are the obligations of consumers?

Consumers are required to ensure that e-waste generated by them is channelized to authorized collection centers or registered dismantlers / recyclers or returned to the producers take-back systems. Bulk consumers have an obligation to maintain records of e-waste generated by them and make such records available for scrutiny by the State Pollution Control Board.

Can E-Waste be reduced?

We can reduce the e-waste generation by using our products for longer or putting the product in the market for reuse rather than discard it. Environmental and social benefits of reuse include diminished demand for new products and virgin raw materials; larger quantities of pure water and electricity for associated manufacturing; less packaging per unit; availability of technology to wider swaths of society due to greater affordability of products; and diminished use of landfills

How to dispose E-Waste?

E-waste is currently governed under the E-waste Rules, 2011 in India. Under this, all producers or the brands which sell these devices to you, are required to set up take back or collection systems to collect these end of life equipments. You may look at the website or booklet provided along with the product and you will be able to find details of the process.

E-waste should not be given to unauthorized vendors / buyers. The respective pollution control boards in different states authorize agencies to collect e-waste from generators. This authorization is given based on the competency of the recycler, infrastructure and other factors as decided by the regulatory authorities. So, in case you can't find the Producer take back details, you can give it to one of these authorized agencies. The list should be available to your Pollution Control Board's website.

Ankita Jena
ankita@toxicslink.org

MUNICIPAL SOLID WASTE MANAGEMENT: SOURCE SEGREGATION IS THE KEY

With increasing population, shift towards urbanization and changing consumption behaviour, the amount and type of waste generated is also observed to be growing rapidly across the world. The quality and quantity of household waste collected from different areas may differ as waste generation depends on lifestyle, food habits and cultural traditions of the inhabitants of a particular area. This type of waste comes under the category of 'Municipal Solid Waste'. It includes household waste, construction and demolition debris, sanitation residue and waste from the streets. Till now, various studies have been conducted on issues related to solid waste disposal, management practices and policies, and several models have been recommended, however, the problem of MSW generation and management, still remains unsolved.

Percentage Composition of Municipal Solid Waste

Composition	%
Organic matter	55
Recyclables	15
Inerts (Bricks, stones ashes etc.)	30

Source: International Journal of Research in Chemistry and Environment, 2015, Vol.5, Issue 1.

Waste generated from the households comes under the daily generated and collected waste category. A common practice is to have common dustbin in houses or sometimes a separate one in kitchens and washrooms. But when the waste collectors come, they put all these different categories in a single bag they carry. The problem starts here; all kinds of waste i.e. biodegradable and non-biodegradable waste; dry and wet waste gets mixed. As has been discussed by various studies, waste can be used for energy generation or it can be converted to organic compost, but for that its segregation at source itself is very crucial Otherwise, it is very difficult to separate the waste once it gets mixed.

Some attempts have been made in major cities such as in Delhi for the separation of waste by installing two types of dustbins at public places. However, it can be observed that even those who opt to throw waste into bins do not bother to notice which waste they are throwing into which type of bin. Moreover, the waste collection from these bins is also done in the same vehicle making the whole idea of different type of dustbins a failure. All this waste enters open landfills site in the cities where they lie untreated causing the leachates to enter the soil and also contaminate the nearby water sources. Apart from this it destroys aesthetics of the place and the nearby population suffers from foul smell due to the openly decomposing waste. The informal workers who depend on this waste collection are the most severely affected by this mixed, untreated, landfilled solid waste.

Indian Regulation: Currently India has solid waste management rules which mentions that waste should be segregated into biodegradable and non-biodegradable waste and they should not be treated in open to avoid environmental contamination. In addition to this the rules prohibit manual separation of municipal solid waste without any safety equipments like mask, gloves, etc.

But in practice we see the opposite. In some cases where segregation is done, the workers do it with bare hands. Due to lack of regular collection the common bins on the sides of streets or outside a locality is seen overflowing with the dumped waste attracting flies and insects.

Recommendations: Proper collection and segregation is not a failure everywhere. We have some successful examples within the country. In one of its reports on urban solid waste management and peoples' participation in it, Toxics Link presented the models in various cities that are successfully handling and managing this waste. What is required is awareness among the public and sincere efforts by the municipal bodies. The developed countries are very clean; and the major factor behind this is that the citizens understand their responsibility towards environment, and the waste management agencies follow the prescribed procedures. In a highly populated and diversified country like India implementation of any rule will be successful only with the participation of general public. Some steps have been taken by various organizations to actively involve the public in such activities. Toxics Link has been among these organizations, which has shown great enthusiasm in creating awareness regarding proper waste disposal practices among the households. If we are aware, we start the segregation at our homes and create the pressure on collection agencies to maintain the segregation; we can at least initiate the change!

PHOTO FEATURE

THE PLASTIC MENACE: AREN'T WE RESPONSIBLE?

Plastic bags have become a be-all and end-all for every customer. Oblivious to the after effects, one is easily swayed away by the benefits they offers, such as convenience, flexibility, lightness, durability, water-resistance etc. On one hand, plastic bags have made our life easier and on the other hand, they have led to serious environmental damage.

A drain full of plastic bags

Plastic free garbage collection vehicle at Bangur

Waste picker sorting plastic and other waste

Some fruit vendors provide paper bags

Street littered with plastic bags

A grocery shop that provides paper bags


Animals feeding on waste mixed with plastic bags


Plastic waste polluting the environment


Fruits in plastic bags-A common sight


Plastic bags chocking drains

NAPHTHALENE USE IN MOTHBALL: NEED AN URGENT ATTENTION IN INDIA

Most of us are familiar with the scent of naphthalene mothball often used as pest resistant in closets, chests, and clothes storage areas. Scientifically, naphthalene, also referred to as naphthalin, tar camphor, aldocarbon, or mothballs; is a white solid bicyclic aromatic hydrocarbon derived from coal tar or crude oil. They are also widely used at home and offices as air fresheners, paints, stains, flooring and carpeting.

Though naphthalene is used in a variety of products, it is an extremely dangerous chemical that can cause a range of short and long-term health effects, including cancer, blood, kidney, and liver effects. These products are rampantly used in India even though they have been classified as a Class-2B carcinogen by the International Agency for Research on Cancer (IARC).

Uses of Naphthalene

- Mothball, fumigants & deodorizers
- production of phthalic anhydride
- surfactants
- pesticides
- paints
- dispersants in synthetic and natural rubbers
- tanning agents in the leather industry
- veterinary medicine

Health Effects

Naphthalene can be absorbed by oral intake, inhalation, and dermal routes of exposure and can also cross the placenta in amounts sufficient to cause fatal toxicity. Uncommon sources are eating or drinking contaminated food and water. Exposure to naphthalene has been linked to a number of adverse health effects.

Sources of Naphthalene in environment

- Mothballs
- Fumigants & deodorizers
- Metal industries
- Biomass burning
- Gasoline & oil combustion
- Tobacco smoking

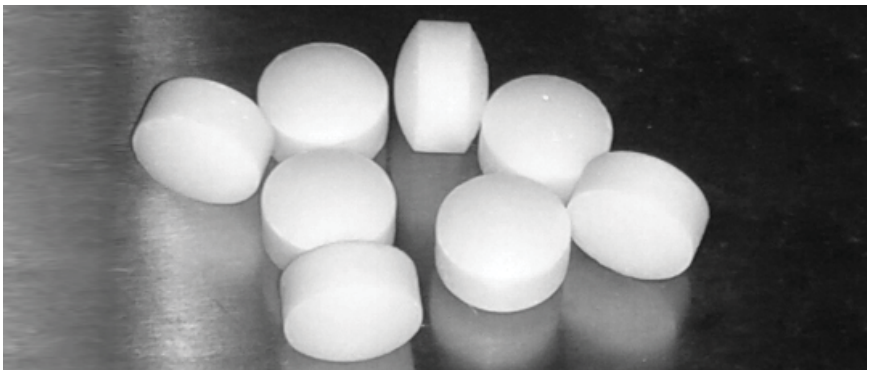
Acute Exposure

- Acute exposure to naphthalene can cause adverse effects such as nausea, vomiting, abdominal pain, diarrhoea, headache, confusion, profuse sweating, fever, tachycardia, tachypnoea and agitation which may lead to convulsions and coma.
- Naphthalene exposure can cause acute haemolysis, particularly in individuals with glucose 6-phosphate dehydrogenase deficiency, which is accompanied by anaemia, leukocytosis, fever, haematuria, gastrointestinal distress, jaundice and renal and hepatic dysfunction which can possibly be fatal.
- Dermal exposure to naphthalene causes mild dermal irritation and in some sensitive individuals may cause dermatitis.
- Ocular exposure to naphthalene may cause eye irritation, corneal damage, formation of lens opacities and cataracts.

Poisoning from naphthalene destroys or changes red blood cells so they cannot carry oxygen. This can cause organ damage.

Chronic Exposure

- Chronic exposure to naphthalene by inhalation will give rise to similar effects as observed following acute exposure.



- Children are more susceptible to haemolytic effects of naphthalene than adults
- Naphthalene is considered to be a possible human carcinogen

Regulation

Seeing the chemical risk posed by inhalation, ingestion and dermal absorption, naphthalene in mothball is banned in developed countries. Within EU, mothballs and other products containing naphthalene have been banned since 2008.

US government agencies have set occupational exposure limits to naphthalene exposure. The Occupational Safety and Health Administration (OSHA) have set a permissible exposure limit at 10 ppm (50 mg/m^3) over an eight hour time-weighted average. The National Institute for Occupational Safety and Health (NIOSH) has set a recommended exposure limit at 10 ppm (50 mg/m^3) over an eight hour time-weighted average, as well as a short-term exposure limit at 15 ppm (75 mg/m^3).

Canada and New Zealand too have banned the use of naphthalene in mothball and mothflakes because of carcinogenic characteristic. Pediatricians, consumer watchdogs, environment activists have urged a ban on napthalene in other countries like Philippines and Australia because of the risk of brain damage and sometimes even death of infants.

In China, the use of naphthalene in mothballs is forbidden. It is partly due to the health effects as well as the wide use of natural camphor as replacement. However naphthalene is widely produced for moth balls and they are currently exported from China.

However, in India naphthalene is still being used in mothball without any standards for outdoor/indoor exposure limit and there is no ban on its production or use.

As a precaution against health-damaging exposure, there is an urgent need to call off this chemical from Indian market & households.

Alka dubey
alka@toxicslink.org

E-Hell on Earth? NGT wants answers from DGFT on India's 'digital dumps'

Source : Daily Pioneer, New Delhi, 14 April 2015

The National Green Tribunal (NGT) has sought response from the Directorate General of Foreign Trade (DGFT) on a plea alleging rampant violation of e-waste management rules notified in 2011. "We find that the reply of Directorate General of Foreign Trade will be of great assistance to us particularly, as regards the electronic/electrical products imported to our country. We, therefore, expect its response in the present application," a bench headed by Justice UD Salvi said.

The green panel directed DGFT to file its reply within a week and fixed the matter for hearing on April 28. The tribunal was hearing a plea by NGO Toxics Link, filed through advocates Ritwick Dutta and Maneka Kaur, which claimed that tonnes of second-hand or used goods are being dumped in India's 'digital dumping grounds'. The NGO had sought direction to the DGFT to submit a report on the exact quantities of goods being dumped in the country under the Export Import Policy of India (2013-2014).

Quoting a 2011 Rajya Sabha report, which said that "India had been a destination for industrial wastes," the plea had also sought information on how these used goods were being recycled and whether this was being done in an eco-friendly manner. Electronic waste is discarded electrical/electronic devices which includes scrapped PCs, electronic office equipment, entertainment device electronics, mobile phones, television sets, refrigerators etc. E-waste Rules, 2011 apply to every producer, consumer or bulk consumer involved in the manufacture, sale, purchase and processing of electrical and electronic equipment or components.

Face to face: 'Managing Ridge will require experts, not horticulturists'

New Delhi, Aug. 8 -- For ages it has acted as the metropolis' lungs but the Delhi Ridge has been under threat from the very people it benefits. HT talks to Ravi Agarwal, former member of the Ridge Management Board, about the degradation and possible revival of the forest.

You have been part of the campaign to save the Ridge from encroachments. How do you view the Ridge today?

When we started the Ridge campaign in 1994, there was not as much pressure on land as there is now and neither was land this expensive. In 1996, around 8,000 hectares of land was declared as protected forest. I don't think we can do the campaign today because no one is going to protect so much prime city land. But it is not just in Delhi.

Okhla plant boost irks many

Source: The Times of India, New Delhi, June27, 2015

The Delhi government's first budget may have scored high on the environment front, but the ragpicker community and civil society organizations working on the issue of waste are concerned about its promotion of waste-to-energy plants in Delhi. In several meetings held since before AAP came to power, chief minister Arvind Kejriwal had reportedly assured ragpickers that the AAP government will involve them in the waste management process, especially collection and segregation, and that it will not encourage waste-to-energy technology.

But the budget states that «waste-to-energy plants are being promoted by the government for better disposal of municipal waste». It also mentions the controversial waste-to-energy incineration plant in Okhla as one of three plants that will together help utilize about 6,250 metric tonnes of trash. Residents of Okhla who have been protesting against the plant, because it is allegedly generating toxic emissions, are taken aback by this statement as «the government has promised to shut it down».

Read More: http://timesofindia.indiatimes.com/city/delhi/Okhla-plant-boost-irks-many/articleshow/47838210.cms

Over 31 percent paints have alarming levels of lead: study

Source: Indian Express, New Delhi, June 9, 2015

Over 31 per cent of household paints in India still contain "alarming levels" of lead which can pose a serious threat to children and pregnant women, a new study said today. The study by Toxics Link titled 'Lead in Enamel Household Paints in India in 2015' found that 32 of 101 enamel paints analyzed had lead concentration above 10,000 ppm (parts per million), way above the prescribed BIS standards (90 parts per million) for lead in paints. All these 32 paints were from the small and medium enterprises (SMEs). "The health impacts of lead exposure on children's brains are lifelong, irreversible and untreatable," Satish Sinha, Associate Director, Toxics Link said in a release.

Read More: http://indianexpress.com/article/lifestyle/health/over-31-per-cent-paints-have-alarming-levels-of-lead-study/#sthash.tvAcRDhi.dpuf

Capital greens reduced to ashes, trees cut and sent to crematoriums

Source: India Today, New Delhi, June 1, 2015

Every year, 50-60 million trees are burned during cremations in India, which results in about eight million tonnes of carbon dioxide or greenhouse gas emissions. In a city where burning of a handful of dry leaves attracts a fine of Rs 5,000 to clean up the toxic air we breathe, thousands of trees are cut and the wood is given free

of cost for burning. This makes the air even deadlier, apart from being a major asset loss.

Felling means loss of oxygen and groundwater recharge capacity, but it is 'a necessary evil' allowed by the forest department to build infrastructure. It is the burning - all post-felling wood goes free to be used in funeral pyres - and fears of a scam in handling of the timber that's causing concerns.

Environmentalist Ravi Agarwal said: "The gains from building public transport such as the Metro are being lost by such actions. It makes Delhi a baron, concrete city. Trees cut need to be used as wood, not burnt." Half-burnt bodies and tonnes of ash are also thrown into the Yamuna, causing major bacterial pollution in its waters.

Read More: http://indiatoday.intoday.in/story/air-pollution-delhi-trees-cut-crematoriums-industry-environment/1/441413.html

Paralysis by Plastic Plagues Delhi's Ecosystem

Source: Indian Express, New Delhi, May 24, 2015

It's not just cows, but the entire Delhi is gagging on these weapons of mass destruction. A city of 1.82 crore people generates a staggering 690 tonnes of plastic waste every day of which over 40 per cent go recycled. Civic authorities say the daily addition to the waste is 276 tonnes. A huge portion ends up in landfills and the rest clogs the city's roads, drains and the Yamuna River causing untold damage to the pollution-infected population's health.

Read More: http://www.newindianexpress.com/thesundaystandard/Paralysis-by-Plastic-Plagues-Delhis-Ecosystem/2015/05/24/article2829695.ece

Electronic wasteland

Source: DNA, New Delhi, May 17, 2015

According to the United Nations Environment Programme's just-released Waste Crimes, Waste Risks: Gaps and Challenges In the Waste Sector report, 90 per cent of global e-waste is traded to China, India, Pakistan, Bangladesh, Vietnam, Nigeria, Ghana, Republic of Congo and Cote d'Ivoire. India isn't just a leading e-waste importer. It' is also the world's fifth highest e-waste generator.

So what can the average Indian household that relies on kabadiwalas to dispose everything from paper to obsolete technology do? After all, more raw material means more frequent processes like acid baths. "Karkhanas (workshops) where bhangaar (junk) is sold by kabadiwalas use 40-50 litres of hydrochloric-nitric acid solutions to extract a few grams of metal

Read More: http://epaper.dnaindia.com/story.aspx?id=78857&boxid=150233&ed_date=2015-05-17&ed_code=820009&ed_page=10

World health day: Toxins being served on your platter

Source: The Times of India, New Delhi, April 7, 2015

Have you wondered what you are really eating? What you believe is nutritious intake could be toxic morsels capable of predisposing you to a variety of diseases including cancer. The next time you buy vegetables, investigate if they are coming from the 45 villages downstream of Vasna barrage as the quality of treatment of sewage and industrial effluent suggests that veggies from these areas may contain toxic heavy metal pollutants.

Read More: http://timesofindia.indiatimes.com/city/ahmedabad/World-health-day-Toxins-being-served-on-your-platter/articleshow/46834081.cms

Delhi one of the greenest cities, still falls way short of 33%

Source : Hindustan Times, New Delhi, 5 Aug 2015

Delhi is one of the greenest metropolitan cities of India with a 20% forest cover. But it still falls way short of the 33% greenery prescribed by the national forest policy.

The Capital has often taken its abundant green cover for granted, with permission for cutting trees easy to come by till even a decade ago. For a city like Delhi, which is growing constantly and exponentially, a constant struggle between urbanisationand preserving the forest has become a daily feature.

"Delhi would have become a desert if it did not have a forest department that regulated tree cutting. Land-hungry Delhi has had a hard time finding peace with its greens," said environment minister Asim Ahmed Khan.

Read More: http://www.hindustantimes.com/newdelhi/delhi-one-of-the-greenest-cities-yet-falls-way-short-of-33/article1-1376619.aspx

Formulate scheme for disposal of e-waste: NGT to MoEF

Source : Zeenews.india.com, New Delhi, 5 Aug 2015

The National Green Tribunal has directed the Ministry of Environment and Forests (MoEF) to convene a meeting of various stakeholders and propose a scheme for environment-friendly disposal of e-waste.

A bench headed by Justice U D Salvi directed MOEF along with Central Pollution Control Board and Bureau of Indian Standards to hold a meeting within two weeks.

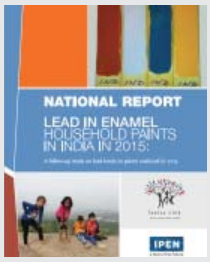
"MoEF shall be the convener of the meeting and shall inform the concerned parties about the date and venue of the meeting at the earliest preferably within two weeks," the bench said.

Read more: http://zeenews.india.com/news/eco-news/formulate-scheme-for-disposal-of-e-waste-ngt-to-moef_1642161.html

RESOURCES

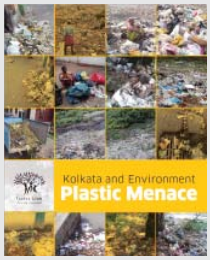
REPORT: THE DARK END: CFL NEED BETTER MANAGEMENT

Toxics Link released a well researched report "The Dark End" which points out that the household CFL waste in Delhi account for 14.93 million pieces of CFL that eventually release 74.65 kg of mercury into the environment. Further, the study shows 82% of consumers throw broken compact fluorescent lamps directly into dust bins while the rest sell them as scrap in absence of authorized CFL recycling units in the capital. Even though the CPCB guidelines have emphasized upon use of Light Recycling Units (LRUS), most of the collection and recycling processes are carried out informally. The study will not only help the policy makers and enforcing agencies in taking immediate steps to establish a comprehensive system for environmentally sound management of CFLs, but will also act as a grave reminder to the manufacturers of CFLs to put buy back system or set system to recycle it.



NATIONAL REPORT: LEAD IN ENAMEL HOUSEHOLD PAINTS IN INDIA IN 2015

A new study by Toxics Link titled, "Lead in Enamel Household Paints in India in 2015" found that 32 of 101 enamel paints analyzed had lead concentration above 10,000 ppm (parts per million), way above the prescribed BIS standards (90 parts per million) for lead in paints. All these 32 paints were from the small and medium enterprises (SMEs). It should be noted that the health impacts of lead exposure on young children's brains are lifelong, irreversible and untreatable and having lead levels in paints above 10,000 ppm is totally unacceptable. The commitments made by small and medium enterprises to shift to lead safe formulations and follow BIS standards have proved to be incorrect. This study was conducted as a part the International POPs bElimination Network's (IPEN) Asian Lead Paint Elimination Project, which has been working with government, paint industry and the public over the last 3 years to raise awareness of the dangers associated with high lead levels in paint. The Asian Lead Paint Elimination project is being implemented in seven countries (India, Bangladesh, Indonesia, Nepal, Philippines, Sri Lanka and Thailand). Toxics Link is implementing the project in India. implementing the project in India.



REPORT: PLASTIC MENACE

Despite a ban on using plastic carry bags of <40 microns and complete ban on plastic in eco sensitive/ tourist sites and Government offices in West Bengal, plastic bags continue to throng the city, a recent study by Toxics Link discovered. The report titled 'Plastic Menace' revealed that negligence and ignorance at the macro and micro level has resulted in complete failure of the plastic bag notification in Kolkata, issued almost a decade ago. During the study, the plastic carry bags were found to be still ubiquitous in the city's markets and street corners and filling up the drainage system and landfills. It was appalling to note that, neither Pollution

Control Board nor the Municipality had any idea about ground realities, quantities of plastic waste generated, and how it was currently being treated. The study shows that the ban has been completely ineffective and the monitoring agencies have failed to do their part. The study also points out that awareness drives and campaigns should be done regularly to inform and educate vendors and consumers about the ill effect of using plastic bags and come up with measures to promote alternative products.

POSTER: I RECYCLE MY E-WASTE RESPONSIBLY, DO YOU?

The poster intends to remind the general public to be more responsible towards disposing e-waste to keep the environment clean and toxics free. Currently, India is one of the largest producers of e-waste and the poster is essential for proper management of such waste.

TRAVELING FILM FESTIVAL- "QUOTES FROM THE EARTH"

Along with the biennial "Quotes from the Earth", Toxics Link also organizes travelling film festival at cities, towns and remote locations of our country. The purpose is to provide a platform for local residents/institutes to connect their surrounding issues with that of larger global environmental concerns, to further enhance awareness and strengthen the policy advocacy initiatives at all levels. The travelling film festival is organized with support of local civil society organizations or schools or any other environment based institution. If you are interested in organizing "Quotes from the Earth" in your area, please write to us or call us at our office numbers.

PHASING OUT BPA!

It's almost impossible to find a product that does not have synthetic chemical added into it, and one of them is the commonly used baby feeding bottle containing the chemical BPA in it. BPA or Bisphenol-A found in baby feeding bottles play the role of Endocrine Disruptive Chemicals (EDCs) that are capable of harming infants and newborn babies. Many countries have banned it as a precautionary measure. Toxics Link has been campaigning against the chemical and released a lab tested report titled "Bottles can Be Toxic" that received considerable attention from all stakeholders including the media. The report was also discussed during winter session of the Indian Parliament. Currently, we are having dialogues with Bureau of Indian Standards to completely phase out BPA from India. Join us in our campaign against BPA.

TOXICS LINK LIBRARY-A TREASURE HOUSE OF KNOWLEDGE

The library of Toxics Link houses a variety of books, magazines and reports which are well-stocked, classified and indexed, for the benefit of the readers. One can also get the entire collection of around 460 documentary films from around the world on various issues concerning environment. It has over 4900 books and research based reports; and new books, magazines and periodicals are added from time to time. One can also find media coverage on environment that are updated on a regular basis. Besides, the library also has stock of parliament questions that are raised on the research based studies on environment done by Toxics Link. The readers can find all the studies done by Toxics Link on its website.

TOXICS ALERT (E-NEWS)

An environment news bulletin

Visit: http://enews.toxicslink.org/, for our monthly e-newsletter on environment related news, articles, policy interventions, events on toxicity and its management. You can also subscribe to receive its update via e-mail.

KEEP YOUR HOSPITALS CLEAN & GREEN WITH TOXICS LINK

The Clean & Green Hospitals (CGH), an initiative of Toxics Link, in association with STENUM Asia Sustainable Development Society, is aimed at supporting and facilitating health care facilities in the country to provide environmentally sustainable healthcare to the masses. It also offers handholding support for hospitals to implement its suggestions which includes capacity building of internal resources. Besides, CGH has an array of training and awareness materials meant at aiding the process of greening the hospital. Please write to us or call us to get detail information about the support that we provide.

For our monthly e-newsletter on environment related news, articles, policy interventions, events on toxicity and its management, visit: http://enews.toxicslink.org/. You can also subscribe to receive its update via e-mail.

Toxics Link
for a toxics-free world

STAY CONNECTED

For more information materials, invitations and updates on environmental issues please write to us at info@toxicslink.org

/toxicslink

Toxics Link - Delhi
H-2, (Ground Gloor), Jangpura Extension, New Delhi - 110014
T: +91-11-24328006, 24320711
F: +91-11-24321747
E: info@toxicslink.org

www.toxicslink.org

Edited by: Samir Prasad and Aastha Elawadhi