

T O X I C S DISPATCH



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Toxics Link
for a toxics-free world

SWACHH BHARAT MISSION – TIME TO EVALUATE IF IT HAS ACHIEVED WHAT IT PROMISED TO

Swachh Bharat or Clean India campaign was launched amidst much fanfare and hype in October 2014 by Prime Minister Narendra Modi, with the hope of finding a lasting solution to the extremely complex issue of waste management. The campaign broadly intended to rid the country of open defecation and the ever so embarrassing sight of filth and litter on Indian streets. The campaign, though limited and focused in its objectives, comprised of the right elements to address the needs of both urban and rural population. It is a matter of serious concern and embarrassment that 70 years after Independence, we are still struggling to provide effective municipal services to our people. The Clean India campaign was right in its timing, intent and visibility, and as we complete two years of its launch, it is time to review if we are moving in the right direction.

Swachh Bharat has been extremely high on visibility and one can find hoardings, posters, advertisements of the campaign across the length and breadth of the country. The campaign is identifiable with Mahatma Gandhi's iconic spectacle as its logo and it has managed to send a clear message to people to keep their towns and cities from littering. Politicians, celebrities, godmen, and others have all lent their voice and effort in trying to deliver the message. Their effort has certainly paid off in messaging and this limited purpose of reaching out to such a huge population has been achieved to a large extent. Communities and citizens are certainly more aware of the requirements of clean surroundings, but they are yet to fathom how to do so, what the ingredients are and who would be responsible for taking up the cleaning effort.



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EDITORIAL

It's a matter of great relief that waste management and issues of sanitation both extremely complex and challenging is high on priority of the current government in India. While many attribute this to low awareness levels and poor civic sense among citizens, a lot is also on account of inadequate understanding of waste issues and deficiency in service by the urban local bodies (ULBs).

The Prime Minister launched the "Swachh Bharat Mission" on October 2, 2014 with an aim to rid the country of waste and open defecation by 2019. In the past two years, we have witnessed significant visibility on waste and littering, select interventions by few institutions leading to general increase in awareness among citizens. However, this does not seem to have translated into our cities and towns moving towards cleaner environments. The waste situation seems to have aggravated with the rise of increasing number of diseases like dengue and chikungunya being reported from various Indian cities.

The ULBs will also have to measure up to the needs of citizens for a clean and safe environment. So far, the responses of the ULBs across the country have not been very encouraging. They have not been able to put in place any substantive and meaningful solution to deal with this problem in most parts of country. There is a need for innovation, additional resource, identification of right technology and quantum jump in the level of service. Clean India can only be achieved when we deal with all streams of waste - biomedical, municipal, hazardous or electronic in a manner that it does not pose any health or environmental concerns. The solution to this waste woes lie in the rule of law, as our new waste laws are precise but focused on who and what needs to be done. Civic agencies must capitalise on the gains made by the Swachh Bharat campaign to find a complete solution for the garbage generated from homes, offices and market places.

The implementation of the E- waste Rules is expected to be delayed due to late finalisation of the guidelines. But, it is a matter of great satisfaction that disposal of mercury bearing lamps have been included in this rule and the Delhi High Court has also upheld the concept of, "Extended Producers Responsibility" making producers responsible for management of mercury bearing waste arising from their products.

Toxics Link has also commenced its new campaign on Endocrine Disrupting Chemicals (EDCs). Please visit us on www.toxicslink.org to know more about it.

Seasons greetings and best wishes to our readers for an auspicious Diwali!

Satish Sinha
Associate Director, Toxics Link

There has also been significant success in building toilets across the country, and as per government data, over two crore toilets have already been built, which is a great achievement in some measure. The pace of building these toilets have been phenomenal and we hope to complete the target of building more than nine crore toilets in the next three years. While there are concerns regarding the efficacy of these toilets and their utilisation, there are also challenges in terms of changing behavior patterns of people. This is where the country will require adopting another set of strategy and intervention to take the campaign to its next level to ensure better utilisation of these toilets. However, it is comforting to see that as part of the hardware individual toilets has been built, we now require software to ensure its effective utilisation. It is indeed a long, tough journey and can happen gradually and overtime.

Cleaning towns and cities has been an ongoing effort, and the Swachh Bharat campaign has helped in catalysing some of these efforts, especially on awareness generation and mobilising resources. It might be hard to quantify the gains, although it won't be wrong to state that the achievements are below expectation so far. There have been some rating of towns and cities on waste management parameters, but nothing new or significant has emerged. The towns or cities that were relatively clean continue to be so, while others are struggling to even lift the garbage. The government on its part has released manuals, rules, guidelines, but the situation across the country is not encouraging at all. The new rules on waste management does prescribe and bring in new practices and systems with incentives and deterrence, but its implementation across the country has been extremely weak. The onus of implementing the rules is the responsibility of the state governments, and every state government has different degrees of priority for waste management, resulting in varying degrees of compliance to rules. Allocation of funds for municipal services and its effective utilisation has been a matter of concern, though it will be over simplification to state that inadequate funds is the only reason for poor state of waste management. Many municipalities flush with funds have performed poorly and municipalities with

meager resources have outperformed.

There is a critical need to improve environment governance and seek accountability from the Urban Local Bodies (ULB) and regulators, but the important question is who is going to hold these institutions accountable, and what is the mechanism to do so? It is an impossible task for a handful of NGOs to keep approaching National Green Tribunal (NGT) to seek accountability. There is a need to create a deterrence for non- performance and for inadequate service, and citizens also need to be involved and empowered in some of the decision making process to bring in accountability. While the new Municipal Waste Rule has brought in new concepts of mandatory segregation and use of appropriate technology, but as of now, there has been hardly any movement in that direction. Most conversation today is centered on technology and many municipalities are rushing for cost intensive technology that does not have a proven track record.

Waste management in most of our cities is far from being satisfactory and this monsoon does present another set of indicators. The major flooding on roads of Gurgaon was a result of poor waste management and state of storm water drains, the city roads and colonies are flooded with minimal rainfall. Most cities in the country have indicated that it is on account of poor waste management that has resulted in clogging of drains or even blocking of river flows causing such serious civic issues.

The campaign seems to have been bogged down in its own din and the results, if any, are very perfunctory. This is serious as it has a tendency to cause fatigue among citizens. People had hopes and optimism in the campaign, but are feeling despondent. There is an immediate need to create models towns and cities in every state, adopt technologies that can be adapted to local situations and involve people in the decision making process. The municipalities will require to build confidence in communities and citizens to seek adequate payment for the services that are due to them, currently there is a feeling that only few powerful and elite receive this service. Maybe it is time to re-evaluate the gains and shortfalls, and re- strategise and change course.

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THE WAIT IS OVER

The Ministry of Environment, Forest and Climate Change (MoEFCC) released a gazette notification in May this year, for lead levels in paints, indicating the mandatory standard of 90 parts per million (ppm).

The document was open for public comments within 60 days of its publication. Toxics Link has been persistently campaigning for the regulation of lead content in paints, and was the first organization to talk about the issue in India, which was eventually taken by our neighboring (Nepal, Sri Lanka, and Bangladesh) and other developing countries.

Toxics Link also did a series of studies and follow-up meetings with paint manufacturers, respective ministries, and important stakeholders to achieve this goal.

Decorative paint that contain lead additives pose a risk of lead poisoning, especially to young children. As lead paint deteriorates over time, children may inhale or ingest lead through household dust, paint chips or contaminated soil. There is no known level of lead exposure that is considered to be safe. Childhood lead poisoning can have lifelong health impacts, comprising learning disabilities, anemia, and disorders in coordination, visual, spatial and language skills.

Campaign Background

In 2006, Toxics Link started working on the issue of lead in paints and collected samples to test lead levels in paints. The collected samples were produced by major paint manufacturers in the country, and were tested in an accredited laboratory using the standard procedure. The results were surprising. The highest lead level found was 140,000 ppm, which was 140 times higher than the prescribed limit set by Bureau of Indian Standards (BIS) during the time, 1000 ppm.

Toxics Link (as a member of IPEN) proposed a Global Partnership to eliminate lead from paint to Forum VI of the Intergovernmental Forum on Chemical Safety (IFCS) in September 2008. IFCS, through a resolution passed at Forum VI, and the Strategic Approach to International Chemical Management (SAICM) Emerging Issues Policy process, has endorsed Toxics Link's initiative.

Elimination of lead from paints is also one of the four SAICM Emerging Issues set for discussion and cooperative action at International Conference on Chemicals Management (ICCM2). Toxics Link and IPEN decided to determine the total lead concentration in new decorative paints available in various developing countries (across Africa, Asia, Latin America and Eastern Europe) in order to know the amount of lead being used in developing countries. This study was carried out in 2009, which concluded that majority of enamel paint samples had concentrations higher than 90 ppm (it is an international standard for lead in paint which is considered safe) or 600 ppm.

The study was first released at the ICCM2 in Geneva in May 2009, and helped in informing the delegates to adopt a resolution to form a Global Partnership under the auspices of UNEP and WHO to eliminate lead from paints by 2020. As a result of the 2009 study and campaign, about 60 per cent (this holds mostly by major paint manufacturers) of the paint market phased out lead from their decorative paints. They claimed and advertised the same.

While working with partners from Nepal, Sri Lanka and Bangladesh, Toxics Link found that some of the major Indian paint manufacturers either produced paint for these neighboring countries or had their own plant there. To check their claims and ensure transparency, Toxics Link planned a study to pick samples from these countries as well as India. The results of this study were again surprising. The same paint brand was found to contain different lead levels in different countries' samples. This revealed the double standards of these paint manufacturers. Keeping this in mind, the neighboring countries initiated their own research and campaign in their countries and Toxics Link acted as a regional hub for them to carry out the task.

In continuation of the above, Toxics Link for the first time, collected a huge number of samples from small and medium manufacturers, and from major paint manufacturers under the SWITCH-Asia programme during 2012–15 - to check the status among small and medium paint manufacturers (SMEs). There are more than 2,500 SMEs who have about 35 per cent share in Indian paint market. The scenario was no different earlier,

a maximum number of SMEs had high lead levels in their paint; the highest level observed was 160,000 ppm in one of the samples (2013 study), while major manufacturer's samples proved their claims to be true. The results were then presented to the ministries, and subsequently after a series of meetings with concerned stakeholders, BIS revised the standard of lead levels in paint to 90 ppm.

Toxics Link started talking to paint associations and convinced them to phase out lead from their paint, as it was strongly considered a major health issue by the pediatric community, WHO and the Health Ministry. Eventually, senior members of the paint association stated that SMEs will follow the standard set by BIS. To check their claim, Toxics Link re-tested the samples, and found very high levels of lead in the 2013 study, while some SMEs had lead levels less than 90 ppm.

During the time, Global Alliance to Eliminate Lead Paint (GAELP), a voluntary partnership was established to help achieve international goals to prevent children's exposure to lead paint and minimize occupational exposures to the same. The broad objective of the alliance is to promote a phase-out of the manufacture and sale of paints containing lead, and to eventually eliminate the risks that such paints pose.

Before a mandatory standard to control lead use came out, we had suggested a third party certification scheme. Quality Council of India had developed this scheme, but it is yet to become operational. Meanwhile, Toxics Link has been continuously pushing for mandatory standards as it is an important health issue, which has been communicated with the Ministry of Health. The health ministry requested the Ministry of Environment Forest and Climate Change to take appropriate action. After long and consistent follow-ups, the ministry issued the gazette notification of 90 ppm as mandatory standards for lead in paints in May this year.

The long wait is finally over. After the completion of the 60 day period, with or without addition/deletion of comments (suggested by public), this mandatory standard will be notified.

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ARE WE EQUIPPED TO DEAL WITH THE ENVIRONMENTAL CHALLENGES RISING OUT OF RAPID URBANISATION?

The world is currently witnessing the largest surge of urban growth in history. More than half of the world's population now live in towns and cities; and by 2030, this number will grow to about 5 billion and by 2050 more than two thirds of the world's population will live in cities. Much of this rural to urban migration will unfold in Africa and Asia, resulting in significant change in social, economic and environmental milieu of these countries and regions.

Urbanisation is not bad per se. Though the benefits of living in developed cities are quite clear, it is important to recognise that this rapid, often unplanned urbanisation presents new and substantial challenges, ranging from governance and citizenship to infrastructure, housing, and environment. Environmental consequences like freshwater scarcity, deforestation, change in land use, loss of bio-diversity, increase in waste generation and pollution, etc. have been observed globally. But, urbanisation can also create connected and cascading effects.

According to a report by McKinsey & Company, urban expansion in India is happening at a speed quite unlike anything the country or the world has seen before. The urban population in India will grow to 590 million in 2030, up from 340 million in 2008. This expansion will affect almost every state. Rural-urban migration in India is often driven by the prospect of greater and better economic opportunities in cities. But, rapidly increasing population density in these centers create severe problems, threatening the utopian concepts, especially as planning efforts are not sufficient to cope with the influx of new inhabitants.

One of the outcomes of the exponential rise in urban population in the country is availability of cheap labour- unskilled/ semi-skilled; prompting mushrooming of many micro and small industrial clusters. Some of these are in the notified area, but many of them are near the slums or outskirts of the cities where the economically poor population finds shelter. In most of these unauthorised or unmonitored units, environment and safety norms are routinely flouted, resulting in the risk of creating potential hotspots.

As per census (2011), Delhi, the national capital, is among the top three destination

for migrants. The huge influx of migrants mainly from the states of Uttar Pradesh and Bihar provides the city with large, poor workforce, ready to take up any work. Availability of this unskilled or semi-skilled labor, combined with the porous boundaries with neighbouring states, has led to Delhi also becoming a hub for small scale industrial activities, often hazardous. A report by Toxics Link in 2014, 'On the Edge' looked at many such clusters and areas, where illegal operations like lead acid battery recycling, e-waste processing, pickling, metal scrap processing continue without hindrance. Most of the units in these clusters, sometimes in the midst of residential areas, carry out hazardous activities without any precaution- not just risking their health, but also damaging the environment by releasing pollutants to all the three mediums. From burning of printed circuit boards near Mandoli to Compact Fluorescent Lights (CFL) recycling in Moti Nagar, from use of blow torch in e-waste processing in Old Seelampur to acid operations in the pickling industry in Wazirpur, many areas in the city continue using processes and materials which can have serious impacts, hence becoming potential hotspots.

The workers, mainly migrant, are engaged for long hours and exposed to chemicals and heavy metals on a daily basis. Most of them unaware of the kind of serious health impact they face, because of the chemical-heavy metals cocktail that they are inhaling or exposing themselves to. Many of these operations employ women and children, at times subjecting them to irreversible health damages. Manual operations like dismantling of e-waste or lead acid batteries or plastic grinding etc, also leave them unprotected from dust particles and noise pollution etc. With no knowledge, most workers hardly practice any safety or sanitary precaution like use of personal protective equipment, washing hands before meals, or changing work clothes before going home; thus increasing the risk of exposure to not just themselves, but also to their families.

The situation was found similar in another city which is a preferred destina-

...more than half of the world's population now live in urban areas



tion for the migrant labour force. Kolkata, the erstwhile capital of pre Independence India, was our next study area. The findings were shocking. Operations ranging from battery processing in Pyrabagan and Picnic Garden to tannery operations in Tangra- Tiljal- Topsia belt (Chamra Patti), from gold smelting in Bowbazar to waste plastic processing in Cossipore-Xhitpur, dot the entire city and the neighbourhood. Unsafe use and disposal of chemicals, high temperature operations with no control on emissions, poor ventilated workspaces, unsafe layouts and inadequate fire precautions etc., are common to almost all these areas. Dumping of spent acid or waste material, burning operations continue with no effort to control any emission or discharges. The units are not just putting health and lives of workers at risk, but since many of them are situated in the midst or in the vicinity of residential areas, they end up exposing many more.

The studies in these two cities give us ample indication that other cities in India may be at risk. If two prominent cities in India are going through this, will the situation in other cities be different? We are probably living in country which is speckled with potential hotspots, waiting to be investigated. But these 'hotspots' continue to burgeon in the heart of cities; right in the face of establishments who choose to shut their eyes. The damage to air, water and soil continue.

While rates of migration may vary from city to city, the causes of rural to urban migration are pretty much the same across the world: people believe there's the chance of a better life in the city. But, do they get that? These migrant labors remain on the fringes of the society, doing jobs which put their life at risk and getting very little, just about to survive, in return. With no recognition

to the units or areas, these workers get exploited and don't even get minimum wages.

So, where are we going wrong? Can't the city 'develop' without compromising its environment? Can't the cities become really 'smart cities' and plan for such influx and initiate programmes to help inclusion of these poor, migratory work forces? Where are we failing? Is it not time to stop and think?

The unsustainable movement from rural to urban centres has many fallouts and

environment is one of them. Mushrooming of unplanned industrial activities and subsequent impact on the environment may seem like a small risk compared to many others impacts. But, as these risks are interconnected, a holistic view and approach is key to mitigating them. Shutting down some of these operations may seem like a straight forward solution, but that will snatch the livelihood of millions from marginalised communities, pushing them further down.

So, the solution needs to ensure that a balance is achieved. Growth and development of industries, cities will need to go hand in hand with welfare of all citizens, rich or poor. Not impossible, but we just need to be more inclusive in our thinking.

If you know about an environmental hotspot near your area, write in to us at info@toxicslink.org

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REGULATING POLYCHLORINATED BIPHENYLS IN INDIA: AN IMPORTANT STEP FORWARD

Polychlorinated Biphenyls (PCBs) are synthetic organic chemicals that belong to the broad family of chlorinated aromatic hydrocarbons. The chemical was first manufactured by Monsanto, and is used for various industrial purposes, mostly as a coolant in transformers, electric motors and capacitors. PCBs are also used in inks, dyes, lubricants, plasticizers, adhesives and in pesticides. PCBs are also released unintentionally into the environment through various industrial processes.

PCBs as Persistent Organic Pollutants (POPs)

PCBs are known industrial chemicals, and have a wide range of applications; however, health and environmental impact of the chemicals have surfaced. Research studies have found that PCBs are carcinogenic in nature. Most importantly, PCBs have the characteristics of Persistent Organic Pollutants (POPs) and were designated as POPs during the Stockholm Convention in 2006. They have been listed in Annexure-A (elimination) and Annexure -C (unintentional production) of the Convention, and as per the Stockholm Convention process, government agencies are to prohibit and/or take necessary legal and administrative measures to eliminate the production, use, and unintentional release of PCBs into the environment.

PCBs Regulations in India

PCBs were never manufactured in India. The requirements of PCBs for numerous applications were met through imports. India ratified the Stockholm Convention in 2006. The National Implementation Plan

PCBs Contaminated Sites in India

- **Bhillai Steel Plant**, Chhattisgarh
- **Rourkela Steel Plant**, Odisha
- **Ship Breaking Yard Alang**, Gujarat
- **Neyveli Lignite Corporation Limited**, Tamil Nadu
- **Panki Thermal Power Plant**, UP
- **IISCO Steel Plant**, West Bengal
- **Dhulekote Storage and Disposal Facility**, Haryana

(NIP) prepared by the Government of India has assessed the

PCBs stockpiles in India to the tune of 10, 000 tons, and proposed suitable actions to eliminate these chemicals - to prevent adverse impact on environment and health. In alignment with the commitment towards the Stockholm Convention, in April 2016, the Ministry of Environment, Forests and Climate Change, issued an order known as the Regulation of Polychlorinated Biphenyls Order 2016 under the Environmental protection Act 1986. Some of the important provisions in the order are,

- Ban on the manufacture, import of PCBs in India
- Ban on the import of PCBs containing equipment to India
- The import, export and trade of PCBs containing equipments shall be dealt under the Hazardous Waste (Management, Handling and Transboundary Rules) 2008
- Complete ban of PCB use in any form by 2025

- Disposal of PCBs and PCBs contaminated equipment shall be in an environmentally sound manner
- The occupier shall not drain or discharge PCBs directly or indirectly into land and water

Challenges Ahead

The regulation of PCBs is an important step forward; however there are some key challenges that need to be addressed to implement the order and sound management of PCBs in India;

- The inventory of PCBs in the NIP is very limited, so there is a requirement of detail inventory on the stockpiles of PCBs
- At present, the information on PCBs are limited to transformers in big industrial units. However, there is no information on PCBs' use in other non-legacy products
- The NIP identifies the presence of PCBs in public sector undertakings, but there is no information on PCBs storage from private entities
- State electricity authorities, the biggest repository of PCBs in India, have very limited understanding of PCBs
- The government also needs to come out with a clear cut plan for suitable disposal of PCBs and PCBs containing equipments
- The order is silent on the remediation of the contaminated sites, which needs to be de-contaminated keeping into considering its environmental and health impacts
- The order is also silent on how to deal with the unintentional release of PCBs

RESISTANT MICROBES IN OUR ENVIRONMENT: ANTI MICROBIAL RESISTANCE IS NOW A GLOBAL EMERGENCY

Antimicrobial resistance (AMR) is one of the major public health concerns as it is responsible for the evolution of the existing microbial strains into resistant ones. This is leading to ineffectiveness of the antimicrobial drugs meant to treat diseases caused by those strains. Due to this resistance, it is getting difficult to treat the population with the available treatment regimes. So, the drugs which are actually meant to kill a particular microbe is eventually somehow making it stronger. This is what AMR is all about. It is the resistance of a microorganism to an antimicrobial drug that was originally effective for treatment of infections caused by it. On one hand, we are medically advancing, finding cures to more and more untreatable diseases, on the other hand, we are moving backwards by losing cures to even the most common diseases that are now being treated for years. The diseases which could have been treated will now kill.

World Health Organisation (WHO) which declared AMR as a global emergency, found AMR to be responsible for about 25000 deaths¹ in a year whereas some studies blame about 50,000² deaths to its account. Even the most common curable diseases are now becoming untreatable. In 2013, there were about 4,80,000 new cases of multidrug resistance tuberculosis. Extensive drug resistant tuberculosis has been identified in about 100 countries³. Incidents of treatment failures are being reported globally. Treatment failures for gonorrhoea have also been reported from 10 countries and it is predicted to become untreatable soon. It is becoming a principal threat to public health. The use of animal feed supplements with the antibiotic Tylosin has led to the development of erythromycin-resistant streptococci and staphylococci (types of bacteria) not only in the animals but also in their handlers⁴. Lately, concerns have also been raised that routine surgeries

or cancer chemotherapy will become less safe due to common infections. It is acting like a disease in itself, claiming thousands of lives each year and yet, we do not have any cure for it.

Causes of rising AMR

Extensive and inappropriate usage of antimicrobials is one of the major reasons behind it. Over the counter availability of these drugs, rising self medication and pill popping habits across the globe are contributing to its abundance in the environment. The perception that these are capable of treating common infections such as cough or cold is leading to their increased consumption. There has been a rising trend in consumption of antimicrobials without any prescription. It has been reported that about 20-30 per cent of antibiotics are consumed without prescription in south and east Europe, and up to 100 per cent in parts of Africa⁵.

According to WHO, global consumption of antibiotics has increased by 40 per cent between 2000-2010. The **National Policy for Containment of Antimicrobial Resistance** launched in 2011 states that about 20-50 per cent of all antibiotics use is inappropriate. These are also used in sub-therapeutic doses in animal rearing for preventing the diseases and promoting the growth of the animals. Germany has a reported usage of over three times for animals than humans⁶. Antimicrobial agents are also being used in plant agriculture and commercial fish and seafood farming.

In many instances the patients do not complete their prescribed course duration and do not understand that this indeed is leading to the development of resistance as the incomplete antimicrobial dose is incompetent in killing the microbes over their complete life cycle, now these remaining microbes evolve to become more resistant. This is making the existing effective antimicrobial, ineffective in the long run.

Entry of the drugs in the environment

These drugs find their way into the sewage through the excreta; some drugs are simply thrown down the drain or into the municipal waste. Effluent discharges from the pharmaceutical industries containing pharmaceutical compounds are also a major source. Apart from these, weak surveillance and poor infection control measures are leading to the amplification of the resistance.

AMR is a global issue, as resistant microorganisms can spread promptly to any part of the world. A number of countries have already starting fighting this disease; Denmark and Sweden have started taking steps to reduce their antibiotic consumption, with Denmark completely banning the antimicrobial growth promoters in livestock production.

India's struggle with AMR

India's pharmaceutical industry is expanding at a high rate and it has become a hub of bulk drug production. This high growth is occurring at an environmental cost and all this is leading to introduction of new and different kinds of microbes and thereby newer diseases in the environment. India has seen a 62 per cent increase in antibiotic consumption over the last decade.

As the extent of this problem is now identified, it is essential for our country to take the required steps in combating it. The **National Policy for Containment of Antimicrobial Resistance** which proposes a ban on the over the counter sale of antibiotics and their non-therapeutic usage in animals and farms, aims to regulate the sale of antimicrobials specially antibiotics and monitor AMR. It proposes to work successfully by forming a national surveillance system which is held responsible for monitoring the usage of antimicrobials.

To further restrict over the counter availability as well as inappropriate consumption of antimicrobials, India has recently launched a **Red Line Campaign on Antibiotics**. All the antimicrobials will be labelled by putting a red line under it and certain symbols will be used to highlight the

1 <http://www.who.int/mediacentre/factsheets/fs194/en/>

2 http://amr-review.org/sites/default/files/AMR%20Review%20Paper%20-%20Tackling%20a%20crisis%20for%20the%20health%20and%20wealth%20of%20nations_1.pdf

3 <http://www.who.int/mediacentre/factsheets/fs194/en/>

4 National Policy for Containment of Antimicrobial Resistance, India

5 <http://www.thehindu.com/news/national/india-lauded-for-red-line-campaign-on-antibiotics/article8622474.ece>

6 Bad Medicine by Natasha Hurley

dangers associated with taking them without any prescriptions.

This policy is a great initiative in fighting this issue and hopefully with the right implementation strategy and increased public

participation we will be able to reduce Antimicrobial resistance.

Apart from the government, is it also necessary for the public to understand the issues related with AMR as eventually,

we are the consumers and it is us whose life is at stake because of this rising resistance.

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LIFE WITH (OUT) WATER

About three per cent of the Earth's water is freshwater – the amount needed for life to survive. The rest is found in glaciers, ice caps, as ground water, in lakes or rivers. Along with the problem of unavailability of more water resources, the present situation is worsened because of water being contaminated with wastes from polluting industries, agricultural sector and households.

Over the past decades, increasing population, urbanisation and industrialisation, expanding agriculture and rising standards have added to the demand of more water. However, there has been a growing realisation among people about the limits to find more sources of water, which has given a sense to its proper utilisation of the existing volume as judiciously as possible.

There are several indicators available for determining water stress and scarcity that reflects water availability in the region. When the annual per capita of renewable fresh water in a country or a region falls below 1700 m³, it is called water stress situation, but if the availability is below 1500 m³, the situation is called as water scarcity. When the per capita availability falls below 500 m³, it is said to be a situation of absolute scarcity. These are also the findings of a study conducted by the Tata Energy Research Institute (TERI). This concept has been propounded by Prof Malin Falkenmark on the premise that 100 litres a day (36.5 m³ a year) is roughly the minimum per capita requirement for basic household needs, and to maintain good health, roughly 5 to 20 times that amount is needed to satisfy the requirement of agriculture, industry and energy.

On this World Water Day (observed on March 22 every year), Central Water Commission (CWC)'s data revealed that water levels at Indian reservoirs are at 71 per cent of last year. Water levels at 91 major reservoirs nationwide are the lowest



in a decade. These 91 major reservoirs contain 157.8 billion m³(BCM) of water, however the capacity of these reservoirs is 250 billion m³. The available groundwater for irrigation is around 400 billion m³.

This year, in India, we have witnessed the worst drought ever mostly in central region. For India, the main source of water has always been its rivers which normally get water from rainfall. But due to depleting forest cover and increased global warming, less or no rainfall has resulted in such a huge loss that has claimed several lives of human beings and other flora and fauna species. The areas that have recently hit the headlines for the most affected areas due to drought are Marathwada in Maharashtra and Telangana.

Not only the problem of drought has gripped the nation's eye, but, availability of safe drinking water is still a struggle for many people in this country. A developing country like ours is still striving for effective and efficient means of water purification and restoration techniques. More than 100 million people live in areas where water is severely polluted. In the survey in 2011, about 130 million people lived in districts where concentration of at least one pollutant is higher than the safe levels.

Of 650 billion m³ water available for irrigation, 15 per cent, or 100 billion m³ of water, is used by sugarcane (the crop uses water from reservoirs as well as groundwater), which is planted on not more than 2.5 per cent of India's farmland. Agriculture and industry compete for the same water,

and overuse, as with sugarcane, affects Indians in other ways, such as electricity generation.

For instance, low water levels in West Bengal forced shut down of the National Thermal Power Corporation's Farraka coal-fired plant, causing outages in Jharkhand, Bihar, Odisha and West Bengal. Electricity generation at Parli in Maharashtra, Raichur and Sharavathi in Karnataka are facing similar shutdowns. Maharashtra and Karnataka are generating half the power they are capable of because of the unfolding water crisis.

After entering into the monsoon month, India has witnessed rains in the month of July and it was above 2 per cent average since June, helping the steady planting of summer sown crops such as sugarcane, rice and lentils. Despite forecast of the good monsoon, around 50 per cent of districts in Punjab which accounts for the highest contribution to rice crop and neighboring Haryana are still dry. Although the states had witnessed almost normal pre-monsoon showers, which was an indication of the good monsoon this year, however, insufficient rain in several districts has put an extra burden on the underground water of the states.

Despite the problems associated with water resources, life cannot sustain without water. The reality on ground portrays a very grim picture. Using water judiciously and not wasting a drop can be the first step to resolve this problem.

Kritika Mathur
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TOXICS FREE HEALTH CARE (TFHC) ACTIVITIES

Mr Charlie Brown, President, World Alliance for Mercury-free Dentistry, Washington DC and Dr Shahriar Hossain, leader of the Asian Center for Environmental Health, Bangladesh visited Toxics Link in the month of month of June 2016 and a number of meetings were organised to discuss the current usage of mercury in the healthcare and specifically the dental sector.

Meeting with the ministry to discuss related to phasing out Mercury thermometers and sphygmomanometers in India

A meeting was held under Chairmanship of Dr NS Dharmshaktu, Spl. DG, Dte GHS, MoHFW, GoI on 8th June 2016 with the visiting experts, Mr Charlie Brown, President, World Alliance for Mercury-free Dentistry, Washington DC and Dr Shahriar Hossain, leader of the Asian Center for Environmental Health, Bangladesh. Faculty from Centre for Dental Education & Research, AIIMS; Dept of Dental Surgery, Dr RML Hospital; Dept. of Dentistry, Lady Hardinge Medical College; Dept. of Dental Surgery, Vardhman Mahavir MC & Safdarjung Hospital; Maulana Azad Institute of Dental Sciences and representative of IMA & representatives of Toxics Link were also present. The meeting was also attended by officers from MoEF&CC, CPCB, Dte GHS and NCDC. The main objective of this meeting was to work towards mercury phase down in the healthcare sector. The meeting successfully yielded a framework of steps which has to be taken by the government bodies in order to be in accordance with the Minamata Convention and gradually phase down mercury from the healthcare sector.

Round-table meeting for adoption of Best Management Practices in Indian Dental Sector

The meeting was organised to have a brainstorming session amongst the dental colleges so as to adopt best management practices in the Indian Dental Sector. It was organised by Toxics Link in collaboration with Maulana Azad Institute of Dental Sciences (MAIDS) and chaired by Dr. Mahesh Verma, Dean, MAIDS. Mr. Charlie Brown, President of World



Alliance of Mercury Free Dentistry, Dr. Shahriar Hossain, Secretary General at Environment and Social Development Organization (ESDO), Dr. Praveen Verma, President IDA, Delhi State and representatives from other government and private dental colleges of Delhi-NCR participated in the session. The meeting concluded with a need to stop the use of mercury amalgam for vulnerable population (pregnant women, children and kidney patients), manage the mercury waste being generated in the dental sector and inclusion of alternative filing teaching and testing in the dental curriculum.

A visit to Manav Rachna Dental College

The visit was organised by Toxics Link along with Mr. Charlie Brown, President of World Alliance of Mercury Free Dentistry, Dr. Shahriar Hossain, Secretary General at Environment and Social Development Organization (ESDO) to Manav Rachna Dental College. The purpose of the visit was to understand the dental set up of a private college and aware the dentists about the hazards of mercury. Our team interacted with all the dentists about the Minamata Convention and the need to phase down mercury usage in the dental sector. The session ended with a very positive approach, where two dentists agreed to stop using

amalgams in Pedodontics and want to make Manav Rachna a model in Mercury Free Pedodontics department.

Bio-medical and E-waste workshop in Puducherry

A one-day workshop on Bio-medical waste management and E-waste management was organised by Puducherry Pollution Control Committee (PPCC) on 8th July, 2016. Toxics Link was the knowledge partner and was also invited to deliver key lectures on these two issues. Mr M. Dwarakanath Director, DSTE cum Member Secretary, PPCC, presided over the workshop, which also had presentations from Mr. Chandra Babu, Representatives from Tamil Nadu and Karnataka Pollution Control Boards and other Industry representatives. The multi stakeholder workshop was attended by private and government healthcare, corporate and educational institutions and civil society organisations. Toxics Link and its expertise was greatly appreciated by the participants who raised several queries to the speakers to increase their understanding as well as resolve their problems related to waste management.

After the workshop Toxics Link sent its recommendations to PPCC for improving the bio medical waste and e-waste management in the Union Territory.

DESIGNING A SUSTAINABLE ROADMAP FOR SOUND MANAGEMENT OF E-WASTE WORKSHOP



Toxics Link, in collaboration with Goa Pollution Control Board (GSPCB) organised a day long workshop 'Designing a Sustainable Roadmap for Sound Management of E-waste' on 30th March, 2016. The objective was to facilitate discussions and information exchange on E-waste rules and its implementation among the key stakeholders and to also trigger dialogue on developing a common roadmap for future action.



Organised at 'International Centre Goa', Dona Paula, the daylong seminar was a resounding success as more than 70 people representing all stakeholders of E-waste; bulk consumers, producers, various government departments, E-waste collectors and recyclers, NGO's, environmentalists and activists; from the state participated actively in the discussions.



The workshop, which highlighted the concerns of managing this toxic waste stream in Goa, also discussed the steps required to improve the current situation. Toxics Link stressed on the need to bring in more accountability, stricter penalty for violation and creating awareness among various stakeholders as some of the key way forwards.

UPDATE ON REPORT RELEASE & MEETING ON KOLKATA HOTSPOTS

The city of Kolkata has many clusters which are home to various industrial and semi-industrial activities. These areas cater to many kinds of industries, including plastic, metal, leather, etc. with a vast population engaged in formal and informal processing of a mix of toxic and non-toxic waste. Years of such activities have had an impact on the environment of the city, contaminating the soil, water and air. Poor implementation of environmental norms has made many of these locations potential hotspots of pollution.

To identify and assess the threat, it is important to identify the sites of environmental Hot Spots and document the activities in these areas, from the past and in the present times. A study was undertaken to document such probable Hot Spots in Delhi last year and was the foundation for the study completed in Kolkata.

Toxics Link's new report 'Living Dangerously' is first of its kind study in Kolkata,



mapping the city's polluting centres. The report identifies sites which are contaminating the city's environment by releasing toxic pollutants and thereby creating health

concerns. In order to share the report with key stakeholders and facilitate a discussion among various stakeholders and deliberate upon the findings for ascertaining the need to look and take suitable action in any of these sites, Toxics Link organised a Roundtable Meet with various stakeholders on 22nd March, 2016 at The Golden Park, Kolkata.

The participants comprised of Government bodies, like Pollution Control Board (WBPCB), Kolkata Municipal Corporation (KMC), Kolkata Metropolitan Development Authority (KMDA), Urban Development Deptt., Micro, Small & Medium Enterprises (MSME) Deptt., West Bengal Small Industries Development Corporation Limited (WBSIDCL), Confederation of Indian Industries (CII), Corporates, Environmental NGOs, Academic & Research Institutions, Media etc.

TRICLOSAN – FREQUENTLY ASKED QUESTIONS

Q. What is Triclosan?

A. Triclosan is a chlorinated aromatic chemical compound having anti-microbial and anti-fungal properties. It was first registered as a pesticide with European Protection Agency (EPA) in 1969, but since the 1990's, it is being widely used in household products. Triclosan is an anti-microbial agent which inhibits the activity of bacteria, viruses and fungi.

Q. What are the applications of Triclosan?

A. Due to its anti-bacterial properties, Triclosan is used in personal care, veterinary, industrial and household products. Triclosan is a common ingredient in various personal care products, such as hand wash, bar soaps, cosmetics, shampoos, deodorants, mouthwashes and toothpastes. It protects the growth of bacteria, fungus, mildew and odors in household items like toys, mattresses, toilet fixtures, fabric, paint, furniture, bedding, textiles, carpets, trash bags, surgical scrubs, pesticides, implantable medical devices and sutures. It is also used in making surfaces of cutting boards, kitchen ware and food storage containers to prevent bacterial growth.

Q. How are we exposed to Triclosan?

A. The most likely routes of exposure to Triclosan are ingestion, inhalation and absorption through the skin. Since Triclosan has the tendency of bio-accumulation in nature, it easily enters the food chain through fish or other aquatic organisms. Additionally, Triclosan has been shown to bind to both human estrogen and androgen receptors in vitro, raising concerns about its impact on the developmental and reproductive effects and also for potential cancer risks. Human autopsy analysis has revealed bio-accumulation of Triclosan in liver and fat tissues. Children are most susceptible to the impact of Triclosan.

Q. What are the impacts of Triclosan to human health and environment?

A. There are several adverse health effects of Triclosan on human and animals. Some of these include skin irritation, hormone disruption, allergies and asthma, altered thyroid hormone, metabolism and tumor development. It has detrimental effects on the central nervous system. It has the tendency to interfere with hormone function thus categorized as Endocrine Disrupting Chemicals (EDC). It may cause implantation failure due to their ability to mimic estrogen in humans. Triclosan was found to have estrogenic and androgenic activities in human breast cancer cells, which could potentially stimulate the growth development of cancer cells.

The personal care products are the major contributor to the release of Triclosan into the environment. While most of these products get washed down the drain and then transported widely throughout the environment. It is being frequently detected in the stream, effluents and bio-solids of wastewater treatment plants (WWTPs) in lakes, rivers and sea water in various countries. It is found in high concentrations in treated sewage sludge that is often applied to agricultural fields as fertilizers. It therefore, accumulates in earthworms and there have been concerns about such chemicals moving into the other plants or animals. Triclosan bio-accumulates in aquatic plants and animals and poses multiple eco-toxicity risks. The chemical tends to enter into the food chain from contaminated water and agricultural run-offs. The concentration in which it is detected is found to be harmful to wildlife. This can also interfere with cycling of nitrogen in natural systems. It is degraded readily in the environment via photo degradation or reaction in presence of sunlight forming other compounds like chlorophenols and dioxins.

Q. Is there any policy on its regulations in personal care products?

A. The European Union has put stringent regulations for Triclosan in cosmetics and also banned in some products that will be effective from 2017. As per the EU cosmetic directives, the limit for Triclosan has been restricted to 0.2 per cent in mouthwashes and 0.3 per cent in other cosmetic products like toothpastes, hand soaps and face powders. The US EPA regulates the anti-microbial uses of Triclosan when used as a bacteristat, fungistat, mildewstat and deodorizer. The FDA-regulated uses include hand soaps, toothpaste, deodorants, laundry detergent, fabric softeners, facial tissues, antiseptics for wound care and medical devices.

Minnesota is the first state of USA that has banned the use of Triclosan from retail consumer hygiene products. In Australia, maximum Triclosan permissible limit in cosmetic is 0.3 per cent. In Japan, maximum allowable concentration is 0.1 per cent in cosmetic products. In India, as per the Bureau of Indian Standards (BIS), for cosmetics raw materials and adjuncts, Triclosan has been allowed to use Maximum Allowable Concentration (MAC) as preservatives 0.3 per cent.

Q. Are there any alternatives to Triclosan available?

A. In the market, there are several products available labeled “No Triclosan”. Also, voluntary actions are being taken to phase out this chemical world over.

According to the Centers for Disease Control and Prevention (CDC), vigorous hand washing in warm water with plain soap for at least 10 seconds is sufficient to fight germs in most cases. Also, use of an alcohol or peroxide based hand sanitizer product is a good option. Some natural alternatives to Triclosan are Neem and Clove.

NEWS

Norms being flouted in 'simmering' landfill sites

Source: *The Asian Age*, 20 May 2016, New Delhi

Overflowing garbage landfills in the national capital, which have been saturated way beyond capacity, are already simmering inside. Last month's Bhalswa fire incident has not made any impact on authorities so far. Routine checks are not being conducted to keep a check on such hazardous incidents.

Delhi's three landfills, Bhalswa, Ghazipur and Okhla, creaking under the weight of waste from an ever-growing population, are way past their shelf-lives and must not be used as dumping grounds any more, the Delhi Pollution Control Board has said.

Speaking to this newspaper, think tank Toxic Link's director Ravi Aggarwal said the authorities had failed to keep a check on the landfills. "There are proper guidelines and protocols for monitoring the landfills from time to time. The Bhalswa fire was not an out of the blue incident, most of these areas have been simmering inside. A lit matchstick or rising mercury could cause a huge incident."

If a fire breaks out in these landfills, it will cause threat to not only those living in the areas nearby, but will lead to a polluted gaseous cloud all over the city. "It could be dangerous for the ragpickers who work atop these mountains of garbage, apart from that if the fire is not doused within minutes it can release highly-toxic amounts of carbon monoxide and other harmful gases," said Mr Aggarwal.

The waste nightmare has been caused by a vicious circle, mostly as there is no proper segregation and dumping of garbage in the city. The waste is only collected and dumped, highlighting the glaring of a plan for the future.

Read More: <http://www.asianage.com/delhi/norms-being-flouted-simmering-landfill-sites-962>

Grey clouds loom over formal e-waste recyclers

Source: *The Hindu*, 9 May 2016, New Delhi

Illegal factories process 95% of all e-waste and are flouting safety norms; they are also taking business away from licensed recyclers

Mohammed Sabir spent his childhood learning to dismantle broken circuit boards. It was a reliable source of income for a long time, but the health hazards of handling toxic waste convinced Mr. Sabir to join the formal electronic-waste recycling sector. It's been a tough road since then.

"So far I've been making a loss," he told *The Hindu*. Two years ago his firm Green E-Waste Recyclers Ltd had 12 employees, now he can barely afford three.

"I thought I would get large, steady orders from big companies...but that has not happened. I am not sure how long I can continue," he said.

Mr. Sabir is among the very few recyclers in the city who've registered with the government and is licensed to dismantle, crush and extract precious metals such as gold, platinum and titanium from e-waste, and then dispose the remnants safely.

Formal vs. informal sector

Mr. Sabir's business is suffering at the hands of the informal sector — scores of unauthorised and illegal e-waste processing factories, which can afford to skimp on expenses such as rent and high wages, cut corners on workers' safety, and disregard the proper way to dispose of e-waste.

Shankar Sharma, who handles customer service and marketing for Gurgaon-based e-waste recycler Green Vortex, says that running a formal e-waste recycling centre is challenging because of the arbitrary rules.

"There was a level playing field in 2012 when the Central Pollution Control Board had the final say, but now with recycling being handled by individual States... it's the grey market, which seems to have benefited," Mr. Sharma told *The Hindu*.

Read More: <http://www.thehindu.com/news/cities/Delhi/grey-clouds-loom-over-formal-ewaste-recyclers/article8574451>.
ece2ref=tpnews

Govt proposes to ban household paint with high lead content

Source: *Live Mint*, 27 April 2016, new Delhi

The move comes after persistent campaign by environmentalists demanding regulation of high lead content in paints

Aiming to curb damage to public health from lead poisoning, the environment ministry has proposed a ban on the "manufacture, trade, import and export" of household and decorative paints containing metallic lead exceeding 90 parts per million (ppm).

The move follows a persistent campaign by environmentalists demanding regulation of high lead content in paints. At present, there is no mandatory regulation limiting lead content in paints, although the Bureau of Indian Standards (BIS) has suggested that paint makers keep it under 90 ppm.

Lead poisoning has serious damaging effects on human health. For instance, if passed from a mother's blood to the foetus during pregnancy, it can result in genetic disorders. In growing children, lead poisoning can lead to low IQ, learning disabilities and anaemia. Women who have high blood-lead levels can also develop lower back pain, joint pain and persistent anaemia.

According to a World Health Organization study, lead exposure is estimated to account for 143,000 deaths a year, with developing nations bearing the brunt. Paints are among the major source of lead poisoning. Others are petrol emissions and battery recycling.

Read More: <http://www.livemint.com/Politics/Hydc0BH3YxgPCLcStg3TqL/Environment-ministry-proposes-to-ban-household-paints-with-h.html>

Mollar Bheri pollution turns toxic

Source: *Times of India*, 27 April 2016, Kolkata

Mollar Bheri that has been the waste dumping site of tonnes of daily waste from Salt Lake, New Town and Rajarhat area for years has become a dangerous environmentally hazardous area, emitting dangerous toxic waste as revealed by a study conducted by Toxics Link, a Delhi based

environment NGO. The study shows several people residing in the surrounding area suffering from breathing and other ailments. Around 200 metric tonne of solid waste is generated and dumped daily at Mollar bheri from Salt Lake and its surrounding areas only.

A survey conducted by Toxics Link during the period of mid-2014 to end of 2015 shows that with such huge accumulation of waste in the area over the years, the dumping ground is now fully strewn with plastic bottles, bags, chairs, vegetable peels, thermocol, used syringes, saline bottles, construction rubble and other such waste materials. During their survey, officials of Toxics Link did not find any vermin-compost plant set up at the place to segregate waste. "We have found that the area is easily accessible to village children who roam around to collect useful materials from the waste and local residents from the nearby bheri areas collect reusable products from the waste for their own use.

Read More: <http://timesofindia.india-times.com/city/kolkata/Mollar-Bheri-pollution-turns-toxic/articleshow/52013558.cms>

Onus on manufacturers, retailers to 'scientifically' recycle e-waste

Source: The Hindu, 24 March, New Delhi

Aim is to ensure that those involved in collecting e-waste do it safely and scientifically.

The Environment Ministry has tightened rules by putting the onus on manufacturers, dealers, retailers and refurbishers of electronic goods to ensure that electronic or e-waste goods are collected and "scientifically" recycled.

The new norms include fines, a greater involvement of states in policing and collection as well as bringing exhausted compact fluorescent lamp (CFL) and other mercury-containing lamps in to the purview of electronic waste.

"The rules are stricter and better than what we now have and our main aim is to ensure that those involved in collecting e-waste do it more safely and scientifically," Environment Minister, Prakash Javadekar, told reporters.

The actual date of the rules and quantum of fines would be announced later this year after discussions with states, the minister said.

Read More: <http://www.thehindu.com/business/Economy/onus-on-manufacturers-retailers-to-scientifically-recycle-ewaste/article8390259.ece>

New plastic waste mgmt rules

Source: Business Standard, 19 March 2016, New Delhi

Centre bans plastic bags below 50 micron thickness; producers to take back plastic products.

The central government on Friday notified new rules for plastic waste management across the country, replacing the existing ones, instituted in 2011.

Apart from banning the manufacture of plastic bags below 50 micron thickness, the Plastic Waste Management Rules, 2016, also institute 'extended producers responsibility'. Whereby, plastic manufacturers and brands which extensively use it will be responsible for taking it back.

"For the first time, producers will collect back the plastic through the same distribution system they use for retailing their products," said Environment minister Prakash Javadekar. A comprehensive plan for doing so has to be given by such businesses to State Pollution Control Boards while applying for certification to establish business or renew a licence for operations. Else, licences would be revoked. Existing enterprises get a year to comply.

Ravi Agarwal, Director at Toxics Link, a non-profit working against toxic pollutants in pharmaceuticals, chemicals and e-wastes, said most waste management policies by the ministry have suffered due to an acute lack of implementation. State or local bodies entrusted with monitoring suffer from low levels of personnel and oversight.

"According to the existing rules, all plastic carry bags are mandated to be labelled with the name of manufacturer and batch number, apart from micron size, but this is hardly the case," he said.

Read More: http://www.business-standard.com/article/economy-policy/new-plastic-waste-mgmt-rules-116031801054_1.html

Toxins in sippy cups a threat to babies

Source: Times of India Jun 9, 2016

You could be exposing your babies to toxic chemicals that could interfere with their hormonal system and impact growth. A study by Toxics Link, an environmental NGO, claims to have found Bisphenol A (BPA) in 77% of sippy cup samples tested in Delhi.

Bisphenol A is a known endocrine disruptor and is used in the manufacture of plastic products used by children. It has also been linked with early puberty of the girl child.

Samples of sippy cups collected from different markets in Delhi were sent for testing at Shriram Institute for Industrial Research. The study claims that 10 out of 13 samples tested had BPA in it.

"In one of the samples, BPA concentration was found to be as high as 14.9 ppm. Surprisingly, some of the products labelled as BPA-free were also detected with significant amounts of the chemical," said Piyush Mohapatra, senior programme coordinator at Toxics Link.

Read More: <http://timesofindia.india-times.com/city/delhi/Toxins-in-sippy-cups-a-threat-to-babies/articleshow/52663057.cms>

Combating mercury poisoning

Source: Governance Now, 04th June 2016

Many of us have fond childhood memories of playing with droplets of mercury spilled out of a broken thermometer. A dark silver-coloured shiny liquid was a plaything for kids and perhaps still is, but in reality it is quite a dangerous curiosity. Unaware of the toxicity that mercury contains, many continue to mishandle mercury thermometers at homes and clinics, the consequences of which are not pleasant. Joint and body pain, nausea, skin discolouration, difficulty in speaking and blurred vision are some of the symptoms of mercury poisoning in the human body.

Read more at: <http://www.governancenow.com/news/regular-story/slow-poison#sthash.W6bptCnH.dpuf>

RESOURCES

DISRUPTING TRICLOSAN - A POTENTIAL ENDOCRINE DISRUPTING CHEMICAL FOUND IN TOILETRIES – 2016



A new study released by Toxics Link titled “Disrupting Triclosan - A potential Endocrine Disrupting Chemical found in toiletries” found presence of Triclosan in samples of liquid hand wash and toothpastes of daily use. Total 22 samples were collected from Delhi – NCR region and sent to testing in Sriram Institute for Industrial Research, New Delhi. Out of 11 samples of hand wash tested, one sample was found to have Triclosan content above 3000 ppm (Upper limit as per Bureau of Indian Standards) while in case of toothpastes, out of eleven samples tested, four samples had Triclosan concentration higher than 3000 ppm (upper limit as per BIS). Triclosan has anti-microbial and anti-fungal properties and hence widely used in household products. It inhibits the activity of bacteria, viruses and fungi. The bio-accumulation and persistence potential of Triclosan in environment

is an increasing concern as its exposure has potential negative effects on human and animal health.

BEWARE OF TOXIC SIPPY CUPS – 2016



Toxics Link conducted a study on the presence of BPA titled “Beware of Toxic Sippy Cups - An investigative study on Bisphenol – A (BPA) in baby feeding bottles in India”. In this study, 13 samples were collected from Delhi – NCR region and sent for lab analysis at Sriram Institute for Industrial Research, New Delhi. Ten out of thirteen samples contained BPA in high concentration. BPA was detected in products which were labeled BPA free. Therefore, there is a need to regulate its standards as prescribed for the baby feeding bottles under the ambit of Infant Milk Substitutes, Feeding Bottles and Infant Foods (Regulation of Production, Supply and Distribution) Act, 1992. These are used in baby feeding bottles, dental sealants, tooth coatings, carbon less paper and plastic toys, protective coatings for food and beverage container, bonding and adhesives, flooring,

paving and construction, composites, electrical and electronic laminates etc.

BROCHURE - EDC – 2016



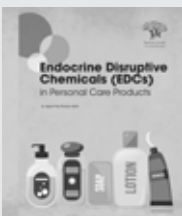
The brochure intends to provide a basic understanding on the Endocrine Disrupting Chemicals classified as EDCs, their applications and exposure and negative impacts on the health of human beings.

FACT SHEET ON TRICLOSAN – 2016



The fact sheet provides basic understanding of the chemical “Triclosan”, its applications, environmental impact, regulations on the use of this endocrine disrupting chemical in various products and alternatives to the chemical.

ENDOCRINE DISRUPTIVE CHEMICALS (EDCS) – 2016

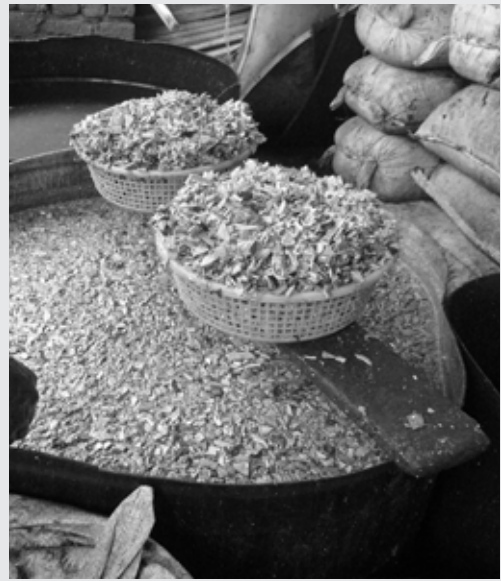
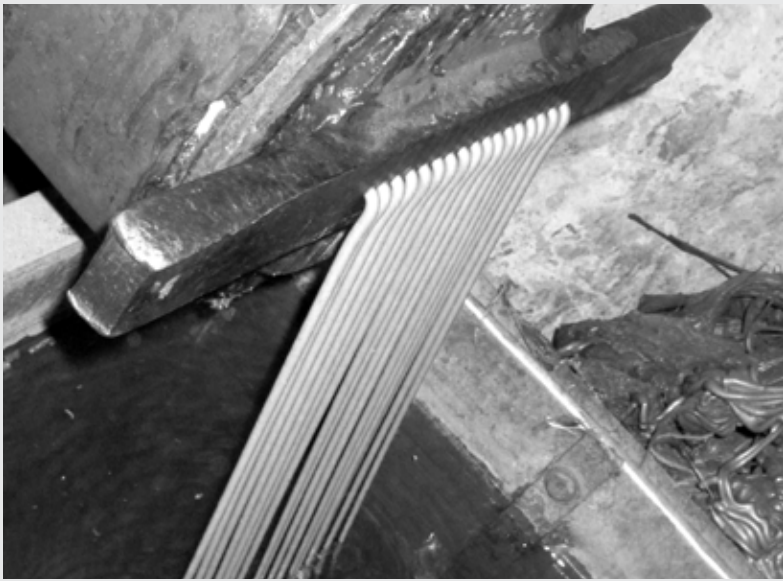


Toxics Link released a report “Endocrine Disrupting Chemicals in Personal Care Products.” This report is a compendium on the chemicals enlisted as Endocrine Disrupting Chemicals. We live in a world in which man made chemicals have become a part of life. It is impossible to imagine any product which can be manufactured without the use of chemical. However though many of the chemicals are useful and beneficial but some of the chemicals are highly toxic and are extremely harmful to human health and environment. Further some of them can affect the endocrine (hormonal) system and interfere with important developmental processes in humans and wildlife species. These chemicals are mostly termed as the Endocrine Disrupting Chemicals (EDCs). Endocrine disruptors are chemicals generally known to interfere with hormone action by altering the endocrine system thus having adverse impact on the human beings and other fauna including wild life.

THE PLASTIC MENACE: AREN'T WE RESPONSIBLE?

India currently generates almost 1 lakh tonnes of this contaminated plastic annually, which is expected to go up to 1.7 lakh tonnes in 2018. Most of this huge quantity of plastic reaches the informal recycling sector, where majority of it is mixed with other plastics and recycled with no safety or health precautions. Due to lack of knowledge regarding its hazards and limited demand, most of the BFR laden plastic is mixed with plastic from other sources, thus spoiling the whole chain. This contaminated plastic is then used to make new plastic products, finally being sold to us, without any warnings or labels.





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 520 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 health-care 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.

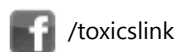


Toxics Link

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



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