

T O X I C S DISPATCH



A newsletter from Toxics Link

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Toxics Link
for a toxics-free world

THE ENEMIES OF OUR DAY-TO-DAY LIFE

In today's age and time, chemicals have become an integral part of our lives. While its usage continues to grow, some of the products that we use in our day-to-day lives contain harmful chemicals. Unfortunately, there is very little information in the public domain on the harmful effects of chemicals, especially in developing countries. While some chemicals are beneficial, some others pose a severe health risk. There are various groups of chemicals, but the most important group, endocrine disruptors interferes with our hormones and alters the endocrine system.

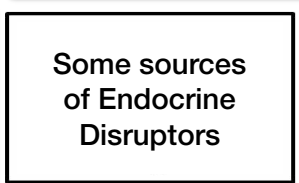
THE ENDOCRINE SYSTEM

It is one of the body's main communication networks and is responsible for controlling and coordinating numerous body functions (including growth, development and maturation) and in the functioning

of various organs. In order to control and adjust many life functions, the endocrine glands (including the pituitary, thyroid, adrenal, thymus, pancreas, ovaries and testes) release measured amounts of hormones carefully into the bloodstream, to act as the body's chemical messengers where they direct communication-coordination among other tissues throughout the body.

For example, hormones work with the nervous system, reproductive system, kidneys, gut, liver, and fat to help maintain and control:

- Body energy levels
- Reproduction
- Growth and development
- Internal balance of body systems, or homeostasis
- Response to surroundings, stress, and injury.



Some sources
of Endocrine
Disruptors

Disclaimer: This photograph has been used for representation purposes only

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EDITORIAL

Dear Readers,

We are happy to bring out the first edition of this year's Toxics Dispatch.

Chemicals today are an integral part of our lives, and also for the development and growth of nations. Endocrine Disrupting Chemicals (EDCs) are a group of such chemicals which are a constituent of many products in our daily lives. These chemicals in small dosage can cause hormone disruptions, impair immune system, hyperactivity, changes in fertility, increase prostrate and decrease sperm production, among other health issues.

In India, very little information is available about EDCs in the public domain. In fact, the chemical industry and product manufacturers are also not forthcoming in disclosing the usage of such chemicals in their products. Globally although there is a concerted effort to regulate and possibly ban usage of certain chemicals, in India there has been no conversation on regulating and managing them. They are still being used in children's and personal care products, food items, etc, exposing and putting at risk the health of large sections of the population.

Toxics Link in collaboration with the Indian scientific community has initiated a series of studies and research on EDCs. We have also brought out the findings of these studies in public domain for constructive engagement with concerned stakeholders for sustainable solutions and minimizing impacts of such chemicals on human health.

We are committed to a long term engagement on the issue and periodically inform citizens of our findings by building a strong multi-stakeholders coalition. The issue of chemical toxicity has been our focus and with your support, we hope to minimize the risk of exposure to citizens.

The year 2016 was particularly significant as the waste rules were revised and notified for implementation. These revised rules have attempted to address some of the major regulatory gaps and have also incorporated many on ground learning's to make it more practical and implementable. One significant change has been the disposal of mercury bearing lamps that are now covered under the E waste rules and responsibility placed with Producers under the principle of EPR.

The important notification has been on standard for lead in paints whereby mandating paint manufacturers in India to comply with the international prescribed limit of 90ppm lead in paints a much awaited and important notification to protect health of citizens specially children.

We look forward to your comments and suggestions on the current edition of our newsletter.

Satish Sinha
Associate Director

Endocrine disrupting chemicals may interfere with the body's own hormone signals because of their structure and activity.

THE ENDOCRINE DISRUPTORS

Endocrine disruptors are chemicals that may interfere with the body's endocrine system and produce adverse developmental, reproductive, neurological, and immune effects in both humans and wildlife. A wide range of substances, both natural and man-made are thought to cause disruption in the endocrine system. These include chemicals from plastic product industries, pharmaceutical industries, chemical industries, agricultural product industries, electrical and electronics equipment industries, etc. Endocrine disruptors may be found in many day-to-day products as well.

MECHANISM OF ENDOCRINE DISRUPTORS

In case of humans it is unclear, but researchers from animal studies have learned about the mechanisms of how endocrine disruptors alter hormonal functions.

- Endocrine disruptors can mimic or partly mimic naturally occurring hormones in the body like estrogens (the female sex hormone), androgens (the male sex hormone), and thyroid hormones, potentially producing overstimulation.
- It then binds to a receptor within a cell and blocks the endogenous hormone from binding.
- The normal signal then fails to occur and the body fails to respond properly. Examples of chemicals that block or antagonise hormones are anti-estrogens and anti-androgens.
- Interfere or block the way natural hormones or their receptors are made or controlled, for example, by altering their metabolism in the liver.

When absorbed in the body, an endo-

crine disruptor can decrease or increase normal hormone levels (left in the picture), mimic the body's natural hormones (middle in the picture), or alter the natural production of hormones (right in the picture).

DAY-TO-DAY SOURCES OF ENDOCRINE DISRUPTING CHEMICALS AND ITS ALTERNATIVES

Research has confirmed that many products that we use on a daily basis might contain endocrine disruptors. Some of the commonly known products are as follows:

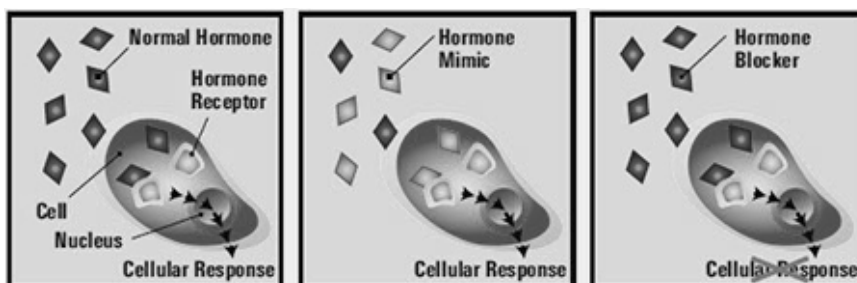
Personal care products – There are certain personal care products that might contain endocrine disruptors. Therefore, it is better to switch natural or homemade personal care products that help avoid exposure to endocrine disruptors. One can also try and cut down on the use of number of personal care products every day.

Baby products – There are certain baby products (teether, sipper, feeding bottles) that might contain endocrine disruptors. A safer alternative would be to switch to products that are free from endocrine disruptors or replace feeding bottles with glass bottles.

Canned foods – To avoid contact between cans and the food preserved in it, certain linings are being used which might contain the endocrine disruptor Bisphenol A (BPA). To avoid this, one can purchase products that come in glass bottles and jars.

Cleaning products – Commercial household cleaning solutions, laundry detergents, all purpose cleaners could also have the presence of endocrine disruptors. It is safer to create your own cleaning products at home using different combinations of vinegar, baking soda, essential oils, or even coconut oil.

Kitchen products – Plastic containers and non-stick cookware in kitchen might



contain endocrine disruptors, like BPA or other EDCs that can leach out if the plastic is heated. Poly and perfluoroalkyl substances (PFAS) used to create non-stick, stain-resistant and water-repellant surfaces are also toxic for humans and the environment. When heated, non-stick cookware releases perfluorooctanoic acid (PFOA), linked to thyroid disease, infertility, and developmental and reproductive problems. Instead, use ceramic and enameled cast iron cookware, both of which are durable and good options.

Cash register receipts – Inkless printing are now very common in most of the markets and thermal paper is being used which turns black when heat is applied. BPA might be one of the chemicals used in the process. To avoid exposure, limit or avoid carrying receipts in your wallet or purse, as the chemical is transferred onto other surfaces it touches. It would also be wise to wash your hands after handling receipts and currency, and avoid handling them particularly, if you've just put on lotion or have any other greasy substance on your hands, as this may increase your exposure. If you're a cashier or bank teller who handles such papers often, you may want to wear gloves, especially if you're pregnant or of child-bearing age.

Drinking water - Drinking water may be contaminated with atrazine, arsenic, and perchlorate, all of which may disrupt your endocrine system. Always use a high-quality water filtration system.

Meat and dairy products - Animals raised on concentrated animal feeding operations (CAFOs) also typically contain antibiotics, hormones, and other industrial chemicals that may disrupt your endocrine system. Look for animal products that are free-range, organic, local farm grown, that avoid the use of such chemicals.

SOME KNOWN EDCS AND THEIR USES

Category/Uses	Examples
Pesticides	Dichlorodiphenyltrichloroethane (DDT), Chlorpyrifos, Atrazine, 2,4-Dichlorophenoxyacetic Acid, Glyphosate
Children's products	Lead, Phthalates, Cadmium
Food contact materials	Bisphenol A, Phthalates, Phenol
Electronic and Building Materials	Brominated Flame Retardants, PCBs
Antibacterial	Triclosan
Textile, clothing	Perfluorochemicals

HEALTH IMPLICATIONS OF ENDOCRINE DISRUPTING CHEMICALS

- Structural damage to the brain
- Immune function alteration
- Hyperactivity, increased aggressiveness, and impaired learning
- Early puberty, stimulation of mammary gland development, disrupted reproductive cycles, ovarian dysfunction, and infertility
- Increased fat formation and risk of obesity
- Stimulation of prostate cancer cells
- Increased prostate size and decreased sperm production
- Changes in gender-specific behaviour and abnormal sexual behaviour

CONCLUSION

Usages of chemicals are varied and it is important to regulate them at the upstream and downstream level. In India, research studies are being initiated on EDCs. Recently, the Bureau of Indian Standards (BIS) banned BPA in baby feeding bottles and sippy cups. Similar regulations are required to prevent EDCs from entering into the food chain and our ecosystem.

Note: Some parts of this article have been referred from various sources available online. For any specific queries, please write to us at info@toxicslink.org

WORLDWIDE REGULATIONS OF SOME EDCS

EDCs	Year and Regulation details in various countries
Bisphenol A	<ul style="list-style-type: none"> • 2015: BPA phased out from baby feeding bottles in India (BIS) • 2013: The US Food and Drug Administration (FDA) banned the use of BPA in infant formula packaging materials • 2013-2015: France passed bans against BPA in food containers. The law for food containers for children went into effect in 2013, and the law for food packaging for everyone else went into effect in 2015 • 2012: The USFDA banned the use of BPA in baby bottles and children's spill-proof cups • 2012: The use of BPA in pacifiers and teething rings have been prohibited in Austria, Belgium, France and Netherlands • 2011: BPA banned in China and Malaysia • 2011: European Commission restricted the use of BPA in baby bottles • 2008: BPA banned in Canada
Triclosan	<ul style="list-style-type: none"> • 2017: Minnesota has officially become the first state to ban soaps containing Triclosan • 2015: USFDA banned Triclosan in soap • Triclosan is banned in Europe • Triclosan is banned in Canada
Phthalate	<ul style="list-style-type: none"> • 1999: The European Union (EU) banned the use of Dibutyl phthalate (DBP), Bis(2-ethylhexyl) phthalate (DEHP), Benzyl butyl phthalate (BBP) from children's toys and childcare articles, and di-"isononyl" phthalate (DINP), di-"isodecyl" phthalate (DIDP) and Di-n-octyl Phthalate (DNOP) from items that children are likely to put in their mouths
Parabens	<ul style="list-style-type: none"> • 2012: Parabens banned in the European Union • 2016: Isobutyl Paraben banned in Philippines

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WILL MAJULI, THE WORLD'S LARGEST RIVER ISLAND, SURVIVE?

Every year, floods wreak havoc in the Northeastern state of Assam and bring life to a standstill. According to the Ministry of Home Affairs, Disaster Management Division, over 1.4 crore (10.4 million) people were affected by floods last year. In flood-prone Assam, overflowing waters have affected more than 1.6 million people, killing many and displacing thousands more, forcing them to flee their homes, abandon their livestock to move to highland areas or makeshift relief camps.

However, mere numbers do not tell the story. Floods not only affect local communities who depend largely on agriculture, but also large swathes of forest areas, including the Kaziranga National Park, home of the one-horned rhinoceros. In August last year, incessant rains submerged about 80% of the Park, drowning many animals, and making others vulnerable to poachers. Some animals

Majuli has suffered extensive erosion from 1966 to 2008. The mean annual rate of erosion over the four decades was 8.76 km²/year

even died of electrocution from overhanging live wires that came loose because of the lashing rains.

Despite the State Disaster Management Authority's efforts to mitigate the problem, frequent floods have rendered the otherwise fertile floodplain of the state almost barren. The per capita food grain production has also declined in the past five decades. Climate change, global warming, excessive rainfall, accelerated rates of erosion, deforestation, human encroachment, etc, have largely contributed to the frequency and devastation caused by these annual floods.

In the middle of all this sits Majuli, the largest fresh water river island in the world and the heart of Vaishnavite culture. Locat-



ed in the middle of the mighty Brahmaputra river, the island has seen severe depletion of landmass every year, with floods ravaging vast tracts of land. As per a study (Open access e-Journal Earth Science India, Vol 3 (IV), October in 2010), Majuli has suffered extensive erosion from 1966 to 2008. The mean annual rate of erosion over the four decades was 8.76 km²/year. But, the intensity of erosion from 1998-2008 was much higher than that of the period from 1966-1975 to 1998 due to the shifting of the bankline of the Brahmaputra. This is a clear indication of the threat facing the island in recent years. Majuli was home to the 16th century Vaishnavite saint and social reformer Srimanta Sankardev and has over 65 *satras* (Vaishnavite monasteries), of which 44 have been washed away over the years due to frequent flooding and erosion caused by the Brahmaputra. The island is also a hotspot of rich flora and fauna, including many rare species of birds that migrate to the island every winter. All this is at a risk of becoming a thing of the past. Year after year, seasonal floods have ravaged the island, leading to erosion at an alarming rate. Communication to the island is restricted to ferries, but it remains cut off for the greater part of the monsoon, as the Brahmaputra becomes too ferocious for even ferries to ply.

As per statistics, of the 1,250 square kilometres, only 352 square kilometres of the river island remain. Almost 60% of the

island has been washed away by floods. The shrinking shoreline of the island is under threat and surveys have shown that 15-20 years from now, the island will cease to exist. Home to around 167,304 people, the local communities, comprising various ethnic groups, have resorted to traditional warning systems to reduce the risk of floods, and conserve the land mass, but a long-term solution needs to be drawn to conserve this unique river island.

Successive governments have taken steps to preserve the river island by raising embankments, plugging of breaches, installing geo-bags, laying permeable porcupine screens, etc, but not much has been achieved. Amidst the concern for the preservation of the island, it is also being considered to be granted a UNESCO World Heritage Site status. Recently, the government announced a Rs 207 crore project towards the conservation and protection of Majuli, and initiated another project to turn it into India's first ever carbon neutral district to combat climate change and reduce greenhouse emission.

Good intent will have to, however, translate into action if the idyllic river island continues to remain. Else, it will be reduced to a mere reference in history books.

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ARE GREENER ALTERNATIVES THE NEXT FUTURE?

What we are doing to the forests of the world is but a mirror reflection of what we are doing to ourselves and to one another.

– Mahatma Gandhi

Mankind confronts a universe of sweeping anthropogenic-incited ecological issues, in an order of unprecedented magnitude in human history. The current condition of nature has provided us with critical suggestions for the prosperity of mankind and different species on earth, which is truly debilitating.

The international social actors have deemed sustainable development as the most suitable tool to address the self inflicted problems and issues related to the integrity of the planet for the sake of our present and future generations. In recent years, however, some of these concerns regarding the environment have been perceived as perpetuated and exaggerated by environmental extremists.

But, the fact is we have induced and created desolated deserts and concrete jungles, buildings that are touching the sky and an economy that is on an all time rise. It will not be incorrect to say that we are failing to see that these very social and economic factors are also leading us to our doom. On the upside, however, one can also see some signs of change in our attitude towards the environment.

Sustainability as an idea is growing and is touching almost all the sectors of our economy, especially design. Sustain-

able development as a concept means economic development without depletion or minimal usage of exhaustible resources. With reference to design, it is still a very new concept in the world, especially in India. But, it is slowly being considered as a viable alternative and is changing the way designers, manufacturers, producers and even politicians think. There is also a considerable rise in demand for sustainable products, and consumers now are favoring those manufacturers who are following and preaching sustainable procedures.

But the shift is slow and gradual from conspicuous consumption to conscious consumerism. Companies and multinationals are also becoming socially conscious and adopting greener practices. Companies like Microsoft and Google are leading the race when it comes to Corporate Social Responsibility globally, while in India, companies like Mahindra & Mahindra Ltd. and Tata are also following suit and setting a precedence in that direction.

The design industry for instance is one of the major consumers of non-renewable resources such as wood, bamboo, metal, steel etc. Although some of these products cannot be replaced, but by making smart choices and replacing it with greener alternatives, we can definitely make a positive dent. For example: A wooden furniture manufacturer or a designer should check if the raw wood that is being sourced is certified by the Forest Stewardship Council (FSC), a standard set on forest products by labeling them as eco-friendly. This also implies that the wood

India is the fastest-growing major economy in the world. It is the fourth largest greenhouse gas (GHG) emitter, accounting for

5.8 percent

of global emissions. India's emissions increased by **67.1 percent** between 1990 and 2012, and are projected to grow 85 percent by 2030 under a business-as-usual scenario.

Source: <https://www.c2es.org/international/key-country-policies/india>

was sourced in compliance with local laws. As conscious consumers, one should ask for the FSC certification, whether it has been done or not. Alternative materials such as Bamboo and Rattan are being praised as smart and eco-friendly, as it grows faster than wood and releases more oxygen into the atmosphere. Upcycling and reused furniture are ideas that are also gaining popularity now-a-days as it emits less Volatile Organic Compounds (VOC) which causes severe ailments when it comes in contact with human beings. It also helps reduce the consumption of exhaustible resources.

Political agreements, financial incentives or technological solutions are not sufficient to grapple with the challenges of sustainable development. It will require a gigantic change in the way we think and the way we act. We need to re-examine how we relate to each other and how we cooperate with the biological communities that bolster our lives. To make a world that is all the more just, quiet and sustainable, all people and social orders must be prepared and enabled by information and a drive for change. The major turnaround lies in the belief that we need to build in ourselves that only we are responsible for our own futures.

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CLIMATE CHANGE: REDUCING CARBON FOOTPRINTS

Climate change is a global environmental problem which has been receiving much attention both at domestic and international levels. The United Nations Framework Convention on Climate Change (UNFCCC) defines it as “change in climate which can be attributed directly or indirectly to activities of human beings that causes alteration in the composition of the global atmosphere in addition to the natural climatic variability observed over comparable time periods.” The elements associated with climate change include rise in the average global temperature, ice cap melting, changing rainfall patterns and increased ocean temperature leading to rise in sea levels. The efforts needed to address climate change problems include adapting mitigation strategies to reduce greenhouse gases (GHGs) emission and building capacity to cope up with its adverse effects, especially in developing countries.

Climate change is primarily caused due to GHGs accumulated in the environment for about 100-150 years through continuous emissions from industries, vehicles and other sources, adding to the existing quantum of GHGs. They are responsible for causing global warming that are both short and long lived, persistent in the atmosphere varying from a few hours to several years. The global increase in concentration of carbon dioxide in the atmosphere is due to burning of fossil fuels and rapid increase in vehicular traffic, while methane and nitrous oxide are due to their increased use in agricultural sector. Climate change also enhances the risk of increased frequency of extreme conditions like floods and droughts. Thus, climate change represents additional stress on ecological and socio-economic systems that are already facing tremendous pressure due to rapid economic development. In other words, climate change impacts the entire ecosystem. Hence, it is important to address the problems of climate change in terms of policies and resources as required at domestic and international levels.

TECHNOLOGIES

Sustainable development through advancement of technology and science in the field of Carbon Capture and Storage (CCS) is presently considered as the most



promising approach to mitigate global warming in the short and medium term. CCS is a process through which CO₂ can be diverted from the atmosphere by capture and storage. “CCS is a waste management strategy for carbon dioxide. It does not reduce the production of CO₂, but it provides a depository to keep it from harming the environment”. The CCS process has distinct elements. The emitted CO₂ is captured from industrial utility and compressed either in supercritical form or sub-cooled liquid form for underground storage. Captured CO₂ is transported via pipeline or ships to the storage site and injected into deep saline aquifers, depleted oil and gas fields or un-mineable coal seams. This CO₂ can be permanently fixated into inorganic carbonates using chemical reactions.

INDIA'S EFFORTS

India has joined a number of international efforts to advance the development and dissemination of CCS technologies. These include participation in the Carbon Sequestration Leadership Forum (CSLF) and the International Partnership for a Hydrogen Economy (IPHE), joining the United States on the Government Steering Committee for the US FutureGen project, the US Big Sky CCS partnership and the Asia Pacific Partnership for Clean Development and Climate. CCS workshops and knowledge sharing events have been organised, including the International Workshop on R&D Challenges in Carbon Capture and Storage Technology for Sustainable Energy Future (IWCCS-07) in Hyderabad and the 2006 CSLF meeting in New Delhi. However, India's official position has not favoured the assessment of CO₂ storage potential in the country

or the implementation of a zero-emissions fossil-fuel power plant given the higher cost and technical uncertainties associated with CCS technologies.

Developing countries have to bear a large burden while adapting to climate change mitigation strategies. India's emissions are bound to increase since it is still a developing country and has large energy needs to be fulfilled. India has a diverse climate variety, and will have to devote substantial part of its Gross Domestic Product (GDP) in meeting this challenge. India has announced a mitigation target of about 20-25% emission intensity reduction by 2020 in comparison to the levels in the year 2005. Under aggressive mitigation scenario, the costs of mitigation can be quite high and there may not be sufficient financial resources available to reach these targets. This aspect would also be considered in any post 2020 arrangement.

All the efforts towards conserving the environment must be carried out early to protect our future generations by providing them with a better quality of life, including productive resources for their future use. While taking care of the future, we must also provide the present generation with the basic necessities and a better quality of life. In addition, there has to be a cooperative endeavor to protect climate and environment along with development imperatives. Put together, combating climate change ultimately boils down to a complex economic policy issue with very difficult choices, involving rates of economic growth, volumes of emission, probable increase in temperature and adverse impacts and costs of addressing climate change.

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INTERVIEW WITH HP

Q Do you think the new e-waste Rules will improve the e-waste management in the country?

At the outset, we applaud the efforts of Ministry of Environment, Forest and Climate Change (MoEF&CC) towards addressing some inherent ambiguities in the earlier e-waste Rules. The new E-waste Rules (2016) undoubtedly is a marked improvement when it comes to centralising and simplifying the administrative process; assigning some level of accountability on the bulk consumers of electrical and electronics equipment (EEE); bringing refurbishers within its ambit; and setting a road map for improving e-waste collection in the country.

We are of the view that for the regulation to address the real challenge of e-waste management, it should involve all actors and all streams of waste electrical and electronic equipment (WEEE); mandate participation by all stakeholders and supported by clear enforcement (e.g. standards) and incentives that ensure compliance; and reward compliance 'plus' (e.g. design for environment). Some of these elements, we find missing in the new e-waste rules.

More important, we need to start re-imagining the entire e-waste issue. HP believes that the rapid pace of innovation in electronic products and growing impacts of a "take, make, dispose" production and consumption cycle are increasing the urgency of creating a circular economy, in which used products and materials are repurposed and kept in use as long as possible. Since the launch of our industry-leading Planet Partners return and recycling programme 25 years ago, HP has driven this transformation within our industry. Since then, we have recovered 1,838,200 tonnes of computer hardware (for reuse and recycling) and HP supplies (for recycling). HP is also committed to supporting the development of recovered materials markets through the use of recycled content in new HP products.

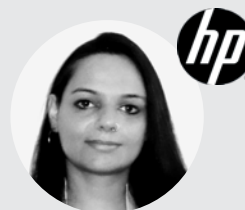
Q What does your company plan to do to improve the takeback system? What are the biggest bottlenecks that you foresee in meeting the prescribed targets?

We offer our customers in India multiple options to return their end-of-life HP branded equipment when they no longer have a use for it. It is important to note that we strive to employ a hierarchy of reuse and recycling options that maximise value while minimising environmental impact:

- Reuse of hardware products by others, including other businesses and consumers
- Reuse of components in used equipment and refurbished spare parts markets
- Recycling of materials into raw materials for use in new products
- Responsible disposal

In line with our approach, we have devised specific solutions catering to our different customer segments. Our core programme covers: e-waste pick up and recycling services; buy-back offer, "device refresh" programme, service based business models (e.g. managed print services); and designated drop points for e-waste collection. Besides our own programme, HP is also exploring options with other like-minded producers for the establishment of a collective take back solution. We wish to highlight that the take back system, though undoubtedly important, is not the panacea for e-waste management. The effectiveness of any take back system will depend on the overall eco system within which it operates. HP has been a thought leader in sustainability for decades and would do its bit for the development of an e-waste ecosystem in the country.

The new rules require producers to meet e-waste collection targets which starts at an ambitious (and in some ways unrealistic) 30 percent. We believe that in setting up targets, all actors (namely producer, bulk consumer and recycler) and all streams of WEEE (formal and informal)



Upasana Choudhry
Sustainability and Product Compliance
Manager, South Asia

should be counted as part of the target. We should recognise that producers do not have full control of the e-waste streams and hence cannot be held accountable for meeting any target scheme. Presence of a strong informal sector creates leakage in the system which is inordinately higher than legitimate recycling programmes in the country. The informal sector, which reportedly handles more than 90 percent¹ of India's total e-waste, is not under the ambit of the rules. Stern measures by way of strict enforcement on informal recycling will be needed to contain this leakage and creating enabling conditions for the producers. While the formal organised sector has taken measures to combat the e-waste issue, the unorganised sector is yet to actively practice suitable methods of recycling and reuse.

We also suspect that high targets will encourage e-waste hoarding/ trade in the country, which in turn shall make recycling a more lucrative option than reuse, hence proving counter-productive to the basic intent of the rules.

Having said that, HP is committed to conducting its business in a manner that delivers leading environmental, health and safety performance. This is consistent with our commitment to corporate citizenship, social responsibility and sustainability. To accomplish this, we strive to meet or exceed all applicable legal requirements.

Q Are you planning to bring in any financial/ or any other incentive to attract the consumers?

We maintain that the producers pay their compliance cost through the system

¹ Borromeo, Leah (2013, October 11), India's e-waste burden. The Guardian. Retrieved from <https://www.theguardian.com/sustainable-business/india-it-electronic-waste>

they set up individually or collectively. HP shall continue to bear all costs associated with our recycling programme to the extent that our customers can avail our services at no additional cost to them. Where feasible, HP also provides recovery value of old devices to the customers under our specialised services. We however have no plans to offer monetary incentives to our consumer segment since we are convinced that it is not a long-term solution. Even in the short term, the widespread presence of informal sector shall render any such effort futile. What we really need is an emergence of a sustainable model driven by market dynamics and not the one which is artificially created through monetary incentives.

We may note that the environmentally sound management of e-waste is most effective when the principle of shared responsibility is applied. In many jurisdictions, such as the European Union, it is an established responsibility of consumers to discard their electronic waste appropriately, the responsibility of government to provide adequate infrastructure and the responsibility of producers to manage the treatment and recycling of their products.

Q What steps has your company taken till date to spread awareness about e-waste to its customers and what changes do you plan to bring in the coming time?

HP believes that awareness on electronic waste and its impacts is a prerequisite for its sound management. We have been communicating the message to our end-consumers, including how they can responsibly recycle their end-of-life EEE with HP. We have taken up a variety of initiatives including, but not limited to, e-mailers and collaterals, in-store promotion, product documentation, website, social media, customer events, and so on. Awareness initiatives targeted at our enterprise customers are likely to vary from that of the consumer segment.

We have a long standing history of collaborating with relevant stakeholders towards sustainable e-waste solutions. In the past we have effectively collaborated with government campaigns (e.g. Digital

India), NGOs, Resident Welfare Associations (RWAs), and other industry members in spreading the message around sound e-waste recycling. We have recently concluded a multi-city awareness campaign covering 12 states that combined mobile collection drive with a road show and made an extensive use of newspapers and social media to amplify the impact. We plan to continue with similar awareness initiatives, both individually as well as jointly with other relevant stakeholders.

Q What kind of criteria does the company follow to select environmentally sound recyclers or dismantlers?

HP requires specialist vendors that support our reuse and recycling programmes to use environmentally responsible processing techniques and to fully comply with all relevant regulations. We also require vendors to attain third-party certification (R2 and e-Stewards), where applicable. We contract the consultancy Environmental Resources Management (ERM) to audit our recycling vendors for conformance with the following HP policies and vendor standards:

- Export of Electronic Waste to Developing Countries Policy
- HP Supplier Code of Conduct
- Reuse and Recycling Standards (www.hp.com/environment)
- HP Security Audit

ERM's audits assess our vendors' environmental, health, and safety practices and performance. In addition, they check downstream material flows to certify no "leakage" of materials to facilities outside our approved vendor network. Nonconforming vendors need to take corrective action. In extreme cases, we stop doing business with vendors who lack sufficient transparency or the willingness to make required changes.

Q What are the key challenges and positives for e-waste management in India

The e-waste landscape in India is admittedly unique in many ways. Our regulatory framework, though still evolving, can serve as a driver for transforming

the way products are designed, used and recycled. Likewise, with government to support and incentivise recyclers to put up high recycling standards facilities complying with both local and international laws in the treatment of e-waste, we can expect our formal recycling infrastructure to further expand.

India also has the most well organised network of informal sector that includes both, waste collectors and recyclers. While waste collectors can be a strength to be leveraged for efficient e-waste collections; the presence of unregulated backyard recycling of e-waste poses huge challenge. Not only does it create many secondary problems like leeching of toxic metals into soil as well as health hazards, but also prevents sustainable e-waste management system to evolve. Enforcement in this area is extremely critical. We envisage the informal players to play a role in the value chain of formal recycling operations.

Coming to the producers', there is no central registry of EEE producers in the country. A large number of producers, therefore, are outside the radar of the regulators posing an enforcement challenge. By doing away with free riders in the system, we can create a level playing field for all involved.

Lastly, since e-waste is a resource, it will continue to open up a floodlight of opportunities. We are already witnessing this with new ventures centered on e-waste emerging in the country. With close monitoring of these entities, we can ensure that India is progressing in a desirable direction with respect to e-waste management.

Answers to be attributed to:

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DEMONETISATION'S AFFECT IN THE SCRAP INDUSTRY

Abdul (name changed), a scrap dealer by profession who has been running his scrap business for the past 15 years is now looking for an alternative source of income to make a living. He had to withdraw his son's name from school, as he could not afford the school fee. His wife took up work as a household help to support him to meet the family's daily needs. While speaking to us, Abdul broke down into tears and said his business, which was profitable until a few months ago has taken a hit. He also revealed that he had no savings of his income all these years, and neither did he have a registered bank account in his name.

In the industry where Abdul works, business is purely cash centric. Scrap dealers buy scrap from households and sell it to large scrap shops where money is paid in cash. He confided that as the dealings happen in cash, and the margin from the selling of scrap was low, he never really saved any money for the future.

People like Abdul, who work as scrap dealers have been severely affected by the recent demonetisation announcement by

Prime Minister Narendra Modi on November 8, 2016, to curb black money in the country. "One needs change to deal in scrap. With the old currency notes becoming obsolete, people in our business are suffering," said Abdul.

The Prime Minister had announced that currency notes of denominations Rs 500 and Rs 1000 lost its legal sanction after November 8 and was nothing more than a worthless piece of paper. This is where most of the small businesses which mostly deal in cash saw a major crash. There were fewer customers in markets, and businesses were affected as there were no sales leading many to close their shops for a span of almost 10-15 days.

Abdul told us how his scrap business was starting to dwindle after the government's move, forcing many scrap dealers to pack their bags and return to their villages. He said the scrap industry was running on credit, as large scrap dealers did not have sufficient money to give to small scrap shops. Scrap dealers, like Abdul, were particularly affected as they do not have enough currency

notes in new denominations to buy scrap discarded by households. He also said it was difficult for small businesses to get change for the newly introduced Rs 2000 currency notes. "We manage to get change from the bank, but it gets over quickly. There has been a decrease of almost 50% in the business because of demonetisation," he said.

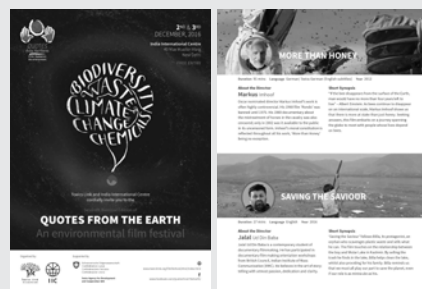
In the cash-strapped days post demonetisation, people like Abdul working in the informal sector, as scrap dealers, or construction workers, daily wage labourers, street vendors, etc, who constitute India's important segment of workforce are scrambling for work and fraying under uncertainty. They have no choice, but to go back to their villages and towns as demonetisation forces them into precarious, insecure and casual work. Abdul and many others like him now stare into an uncertain future.

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RESOURCES

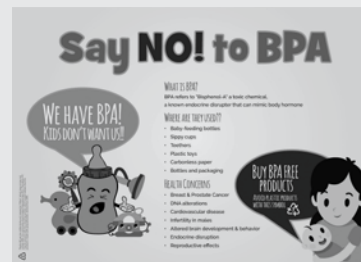
COMMUNICATION COLLATERALS ON QUOTES FROM THE EARTH 2016 – AN ENVIRONMENTAL FILM FESTIVAL

Toxics Link brought out Poster, Brochure and Programme Schedule on the Environmental Film Festival "Quotes from the Earth – 2016" that was held in December. The poster was made as an outreach communication material to invite audience from respective fields like mass media professionals, delegates, non-profit organisations, government and private institutes.



POSTER ON BISPHENOL – A (BPA)

Toxics Link brought out a poster on Bisphenol A (BPA), an Endocrine Disrupting Chemical, which is used in making plastic feeding bottles, sippy cups, receipt papers and other baby care products. The idea behind this poster is to spread awareness about its exposure and the potential harm it can cause to children's mental and physical health.



CARRYING FORWARD THE MESSAGE OF LEAD SAFE PAINTS

Diwali is celebrated with much fanfare and enthusiasm in India. It is the time of the year when people give a fresh coat of paint to their walls, and paint markets are flooded with different types and colors of paint. Most of the paints available in the market contain harmful chemicals like Lead (Pb) that have adverse effects on human health and the environment. Toxics Link has been working to eliminate lead from paints for a long time. To raise awareness on the issue and its impact on health, we partnered with IPEN and started a campaign. The campaign kick-started with a series of activities observed from October 20th–26th, 2016, which also marks the International Lead Poisoning Prevention Week of Action celebrated worldwide.

To reach out to a larger audience, we played radio jingles on theme of Lead Safe Paints in association with Reliance Broadcast Network Limited (92.7 Big FM) in the cities of Kolkata, Bhopal, Chandigarh, Baroda and Hyderabad.

Talk shows were organised in Indian Institute of Mass Communication's (IIMC) Community Radio (Apna Radio – 96.9) and cable TV network Siti Networks Limited. As exposure to lead from paints are known to cause learning deficiencies, lower IQ, delayed mental and physical development in children, we also organised several school programmes in Delhi to explain the necessity to opt for Lead Safe paints. A national level poster competition on the theme of Lead in Paints was organised, where we received entries from schools in Delhi, NCR, Haryana, Mumbai, Kolkata, Madhya Pradesh and other states.

TOXICS LINK'S EFFORT TO PHASE OUT EDCs FROM CHILDREN'S PRODUCTS CONTINUE

Endocrine disrupting chemicals (EDCs) and potential EDCs are mostly man-made, found in various materials such as pesticides, metals, additives or contaminants in food, and personal care products. EDCs have been suspected to be associated

with altered reproductive function in males and females; increased incidence of breast cancer, abnormal growth patterns and neuro-developmental delays in children, as well as changes in immune function. Human exposure to EDCs occurs via ingestion of food, dust and water, via inhalation of gases and particles in the air, and through the skin.

In view of this, Toxics Link in association with National Institute for Research in Reproductive Health (NIRRH) organised a meeting on EDCs in Mumbai. The objectives of the meeting was to gather more research on EDCs and their direct impacts on human beings and environment in Indian context, and to bring up the issue of EDCs among concerned stakeholders, and discuss possible actions for its phase out from children's products. The meeting was attended by researchers from Indian Institute of Technology (IIT) Bombay, NIRRH, National Institute of Oceanography, civil society organisations and industries. The meeting concluded on a positive note where industries agreed to take necessary actions to phase out the use of EDCs in children's product.

WORKSHOPS HELD IN RAJASTHAN ON BIO-MEDICAL WASTE AND HAZARDS OF MERCURY

Toxics Link has been working towards increasing compliance of bio-medical waste in the country and engages with State Pollution Control Boards (SPCB) and NGOs in different states. One of its engagements has been in the state of Rajasthan to increase compliance of the rules in the state and make it a model. In order to sensitise the healthcare machinery in the state, we conducted workshops in seven divisions of Rajasthan – Ajmer, Jaipur, Bharatpur, Udaipur, Kota, Jodhpur and Bikaner. The workshops were held on 'Bio-medical waste management and hazards of mercury' in collaboration with Rajasthan SPCB; Department of Medical, Health and Family Welfare, and was attended by senior health officials, block level institutions, and representative of Common Bio-medical Waste Treatment Facility.

Dr RS Chhipi, Additional Director, Department of Health and Family Welfare, Rajasthan, was an important part of this project. He led many discussions throughout these workshops and acknowledged the efforts taken by our organisation to strengthen hospital based biomedical programmes. He also mentioned these workshops were a good platform for addressing issues that are faced by healthcare facilities across the state and promised that the department along with Rajasthan SPCB will come up with appropriate solutions. The Health Minister also announced that Rajasthan would make a road map to implement model practices for bio-medical waste management in the state.

SEVENTH EDITION OF "QUOTES FROM THE EARTH" – AN ENVIRONMENTAL FILM FESTIVAL

"Quotes from the Earth" is a unique and one-of-its-kind environmental film festival organised biennially by Toxics Link in collaboration with India International Centre, New Delhi. The festival is a collaborative effort that aims to bring under one umbrella the persistent and persuasive films on varied themes of environment – from vanishing biodiversity to global climate change, threats to our lakes and rivers to forest conservation, and from household waste to solutions of global energy challenges.

This year, Toxics Link received funding from the Embassy of Switzerland - to organise the seventh edition of the film festival which was held on December 2 – 3, 2016. A total of 17 films by renowned filmmakers like Markus Imhoof, Mahesh Mathai, Dr Bijukumar Damodaran, Krishnendu Bose, Nandan Saxena and Kavita Behl, etc - on the themes of Biodiversity, Climate Change, Waste Management and Toxic Chemicals were screened. The two-day festival saw an overwhelming response and was attended by over 300 people, including school children, environment conscious people, activists, researchers, and youngsters.

HOW PHARMACEUTICAL POLLUTANTS ARE THREATENING OUR HEALTH AND ENVIRONMENT

As more and more people are being prescribed pharmaceutical drugs every year, it is being unknowingly discharged into our soil, water bodies, and our environment through various channels. Pharmaceutical drugs are generally designed to remain active for a long period to produce the desired therapeutic effect on humans or animals, and are hence found in the environment persistently. They enter the environment through various sources like human excretion, discharge from pharmaceutical industries as well as healthcare facilities. After entering the environment, they react with one another or with other chemical compounds present in the environment to produce a cumulative effect. They elicit various effects on the environment and humans alike, and lead to development of drug resistant microbes, also responsible for causing endocrine disruption, genetic, developmental and other health effects in humans.

The Indian pharmaceutical sector is expanding and has been ranked world's third largest in terms of volume of production. It is amongst the top 20 pharmaceutical exporting countries, supplying to around 200 countries with a major hold in USA, UK, Germany and Sweden.

With the growing market and over the counter availability, pill popping and self-medication practices have dramatically increased, leading to a rise in Environmentally Persistent Pharmaceutical Pollutants (EPPPs).

Since there are no standards to limit the presence of pharmaceutical compounds in the effluents released from pharmaceutical and healthcare industry, they continue to be discharged in an unregulated manner. An incident that occurred in Patancheru, Hyderabad, highlights the gravity of the problem. Patancheru is a drug manufacturing hub, and a study conducted in 2007 by Swedish scientists found alarming quantities of chemical compounds in effluent samples. Waste water from Patancheru were found to contain 150 times higher concentration of pharmaceuticals than the levels detected in US. Many antibiotics like lomifloxacin, ofloxacin etc, were found in high concen-



trations but Cipro-oxacin was found to be $31000\mu\text{g/l}^*$ which is 150 times higher than the maximum therapeutic blood level^{**}. The antibiotics were detected at levels which are toxic even to plants and algae. The effects of these compounds were also felt by people in that area, who were worst affected due to this pollution stress. Some of the documented impacts were death of livestock, crop failure, miscarriages, cancer etc.

Apart from instances of industrial pollution, in the 90's, India faced a near extinction of vulture population. Overuse of anti-inflammatory drug diclofenac in livestock was found to be the cause. Vultures feeding on carcasses of livestock administered with diclofenac, bio-accumulated and died out of kidney failure. It was the first recorded event that linked prescription drugs with the extinction of a species. Veterinary formulations containing diclofenac was banned in 2006, after which the increase in the vulture population was documented.

Though there are well documented studies regarding pharmaceutical pollutants in our country, we lack stringent norms to keep pharmaceutical pollution in check. The Environment Protection Act 1986 has set standards for discharge of environmental pollutants from industrial effluents, but there is no standard specific to pharmaceutical effluents. Many countries have taken a step to address pharmaceutical pollution, for example; US has a "Safe Pharmaceutical

Disposal Act" in Illinois and several federal republic states like California and New York have rules to address the issue. Water policy "Directive 2013/39/EU" of the European Parliament regards pharmaceutical drugs as "Priority Substances" and proposed to create a strategic approach to find the effects of drug in the environment by September 2017. Ten years ago, the Stockholm County Council started a project to assess the negative impacts of pharmaceutical drug in the environment.

Internationally, Strategic Approach to International Chemicals Management (SAICM) declared chemicals of pharmaceutical origin are an emerging issue of concern in the fourth International Conference on Chemical Management (ICCM4). They suspect, the degree of environmental pollution from chemicals of pharmaceutical origin will increase, if adequate risk management measures are not developed. Thus, to mitigate current and prevent future problems, recognition and global management actions have to be established. SAICM has also identified few gaps that need to be addressed before the issue of EPPPs aggravates.

Meanwhile, pharmaceutical pollutants are a rising concern in India and demand a policy change. Strict enforcement needs to be implemented, followed by educating consumers. Some of the ways to prevent EPPPs from entering the environment are:

1. Public awareness and citizen participation can resolve issues such as over the counter availability of drugs.
2. Drug take back system can be set up across the country to return expired and unused drugs from the healthcare sector and from consumers.
3. Effluents from pharmaceutical industries should be treated and monitored regularly.
4. Healthcare sector should comply with The Biomedical Waste Management Rules 2016, according to which the expired drugs and cytotoxic drugs should go for incineration.

*Microgram.

**D G Larsson., et al, "Effluent from drug manufactures contains extremely high levels of pharmaceuticals" *Journal of Hazardous Materials* 148 (2007) 751–755.

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NEWS

GREEN SCREEN

Source: *The Indian Express*, New Delhi, 22 November, 2016

Aimed at bringing to the fore environmental challenges faced across the globe, the NGO Toxics Link and India International Centre (IIC) are organising the seventh edition of "Quotes from the Earth", an environmental film festival. To be held at IIC on December 2 and 3, this year's edition will feature 17 films, themed on biodiversity, waste management, toxic chemicals and climate change. The programme includes More than Honey, directed by Oscar-nominated Swiss director Markus Imhoof, National Award-winning film Valiya Chirakulla Pakshikal directed by Bijukumar Damodaran and Bhopal Express, directed by Mahesh Mathai.

Read More: <http://www.press-reader.com/india/the-indian-express/20161122/282273844959928>

HOW MUCH LEAD HAVE YOU INHALED FROM YOUR WALL PAINT?

Source: *DNA*, New Delhi, 8 November, 2016

Ministry of Environment, Forest and Climate Change (MOEFCC), in its recent notification, has prohibited manufacture, trade, import as well as export of household and decorative paints containing lead or lead compounds in excess of 90 parts per million (ppm).

Activists, who have been highlighting the dangers of lead in paints used in households, have welcomed the new

mandatory 'Regulation of Lead Contents in Household and Decorative Paints Rules, 2016' that was notified by the MOEFCC on November 1.

They also claimed that lead paints were a significant cause of lead exposure especially in children, and the new regulation will help in safeguarding the health of vulnerable children and mothers.

Satish Sinha, Associate Director, Toxics Link, which had identified lead in paints as a very critical issue of toxicity in 2006, and published research papers, shared that this was an extremely progressive standard, enabling manufacturers to make the shift from lead to no-lead paint possible.

Read More: <http://www.dnaindia.com/money/report-how-much-lead-have-you-inhaled-from-your-wall-paint-2271178>

IDOL IMMERSIONS CHOKED YAMUNA

Source: *The Times of India*, New Delhi, 20 October, 2016

Recent idol immersions have worsened the water quality of Yamuna. The dissolved oxygen (DO) levels in the river, which support aquatic life, plummeted to zero post Vijayadashami.

A report released by the Delhi Pollution Control Committee (DPCC) on Wednesday showed the biological oxygen demands (BOD) remained alarmingly high at all ghats where immersions took place—well past the standard marking of 3mg/l for water bodies.

The BOD at Kalindi Kunj rose

from 20 to 24mg/l post immersions while it rose from 25 to 30mg/l at Qudsia Ghat. Geeta Ghat, on the other hand, saw an improvement post immersions when the water quality was tested. On Vijayadashmi, the highest BOD was recorded at Qudsia Ghat where the dissolved oxygen level was found to be zero.

Read More: <http://timesofindia.indiatimes.com/city/delhi/Idol-immersions-choked-Yamuna/articleshow/54945473.cms>

THIS FESTIVE SEASON, MAKE YOUR HOME LEAD-FREE

Source: *The Hindu*, New Delhi, 14 October, 2016

Stay lead-free is the advice that environmentalists are giving this festive season.

"As you get festival-ready, it is important that you keep lead at bay and celebrate in a healthy fashion," said Satish Sinha, of Toxics Link, an environmental NGO.

He added that lead is a highly toxic heavy metal that is used in enamel paints because of its anti-fungal and durable property. But its exposure to children, especially below the age of six, can affect their behavioural and cognitive development. Exposure to lead is not only a major reason for brain damage, but can also cause death, added Mr. Sinha. "The damage caused to children by exposure to lead is irreversible."

A release issued by the group said that lead exposure not only has an impact on our health, but it also causes considerable economic loss to the country. A research by a section of Environmental Paediatrics at New York University School of Medicine

has found that exposure to lead costs India US\$ 236 billion annually.

Read More: <http://www.thehindu.com/news/cities/Delhi/This-festive-season-make-your-home-lead-free/article16070584.ece>

CHEAP PAINTS, THERMOCOL POSE THREAT TO YAMUNA

Source: The Times of India, New Delhi, 12 October, 2016

With hundreds of Puja committees reaching the ghats for idol immersion on Vijaydashami, checking the pollution level in the Yamuna remained a challenge for agencies.

While the number of idols made of Plaster of Paris (PoP) had gone down considerably this year, cheap paints containing heavy metals and decorative items wrapped around the idols were posing a major threat to the ecology of the river. It seems some Puja committees did not pay heed to instructions issued by the Central

Pollution Control Board (CPCB).

Specific collection points were set up on all ghats where non-biodegradable items could be dumped before immersion. "PoP usage has gone down considerably and most idols are made from clay. We have set up designated areas where materials used on the idols can be taken off and collected," said Subhankar Chatterjee, joint secretary of the South Delhi immersion committee at Kalindi Kunj Ghat.

Read More: <http://timesofindia.indiatimes.com/city/delhi/Cheap-paints-thermocol-pose-threat-to-Yamuna/article-show/54801912.cms>

GOVT BANS PLASTIC PACKAGING FOR GUTKHA, TOBACCO AND PAN MASALA

Source: Live Mint, New Delhi, 7 October, 2016

The government has banned the use of plastic for packaging gutkha, tobacco and

pan masala, as it seeks to reduce generation of non-biodegradable waste such as pouches and sachets.

"The brand owners of the units manufacturing gutkha, tobacco and pan masala shall have the overall responsibility for implementation of these directions," the environment ministry said in an order on 29 September, which has been sent to all leading manufacturers of gutkha, tobacco and pan masala across India.

The environment ministry also clarified that these directions will come into force immediately and sought a compliance report within 30 days.

Read More: <http://www.livemint.com/Politics/SxG2blar15iztd9RjaC8wJ/Govt-bans-plastic-packaging-for-gutkha-tobacco-and-pan-masa.html>

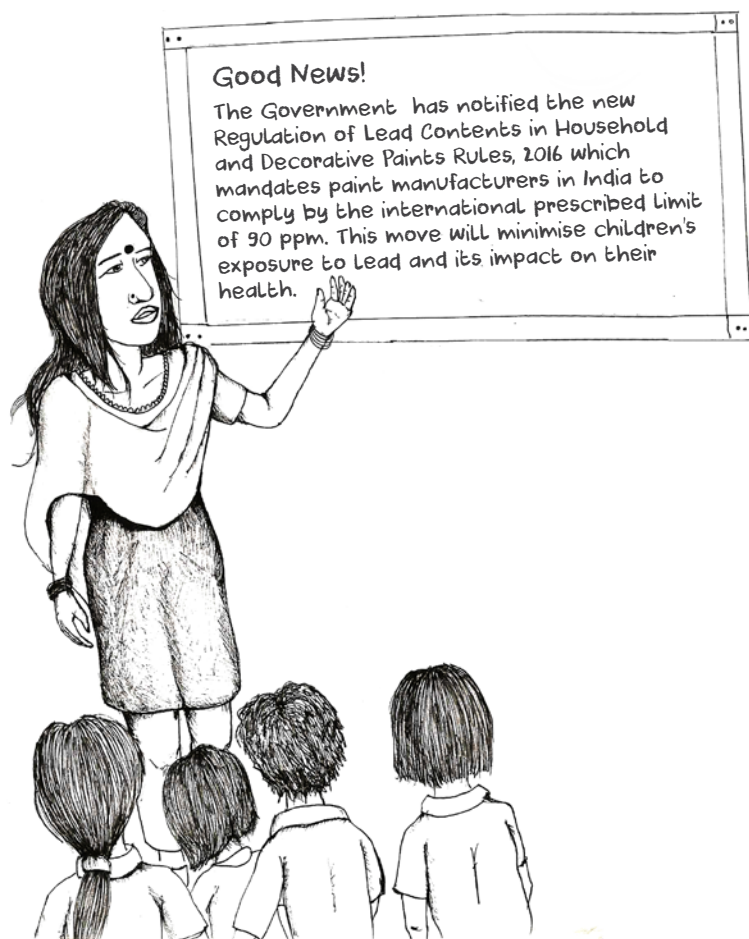


PHOTO FEATURE

QUOTES FROM THE EARTH – 2016

The seventh edition of the biennial environmental film festival “Quotes from the Earth” was organised by Toxics Link in collaboration with India International Centre (IIC) on December 2 and 3, 2016 at IIC, New Delhi. The film festival was inaugurated by Dr Ajay Mathur, Director General, TERI, along with Daniel Ziegerer, Director of Cooperation and Counsellor, Swiss Agency for Development and Cooperation, Embassy of Switzerland. The two-day festival saw an overwhelming response and was attended by over 300 people, including school children, environment enthusiasts, activists, researchers, and youngsters. Here are some glimpses from the film festival:



Chief Guests inaugurating the seventh edition of “Quotes from the Earth” 2016



Environment enthusiasts at the registration desk



Inaugural speech by Ravi Agarwal, Founder-Director, Toxics Link



Rhythmic yoga performance by the students of Sister Nivedita Sarvodaya Kanya Vidyalaya, Defence Colony, New Delhi



Choir performance by school students of Apeejay School, Pitampura, New Delhi



Filmmakers Nandan Saxena and Kavita Bahl interacting with the audience



Audience watching the film screenings



Audience asking questions related to the films



Inaugural Performance by Bharatanatyam dancer Justin McCarthy and his students on *Thyagaraja's Naukacharitramu*



Cultural performance by dance troupe 'Dance Kabila'



Jalal Ud Din Baba, director of 'Saving the Saviour' interacting with the audience



Mariah Wilson, director of the film 'Kaziranga' speaking about the issue of poaching of the one-horned rhino in Kaziranga National Park, Assam

TRAVELING FILM FESTIVAL- "QUOTES FROM THE EARTH"

Along with the biennial "Quotes from the Earth", Toxics Link also organises 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 organised with support of local civil society organisations or schools or any other environment based institution. If you are interested in organising "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.

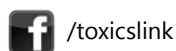


Toxics Link

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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