TOXICS DISPATCH

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Toxics Link
for a toxics-free world

Global efforts on Mercury Management

Mercury is a naturally occurring substance found in the earth's crust and is mined like any other mineral. This shiny silvery metal is today recognized as one of the most potent toxic elements in the world with adequate information available on the toxicity levels and its adverse impact on human health and environment. Mercury- a neurotoxin has the property to bio accumulate and bio magnify, its trans-boundary characteristics and persistence, thereby making it a very potent toxic element. Despite being highly toxic it has unique properties, that makes it suitable for much industrial and household usage across the globe. Mercury once brought into global circulation through products and processes, continues to exist in the environment in various forms and causes grave environmental and health ramifications. The mounting concerns have ultimately brought together global efforts in finding solutions to the vexed problems related with mercury.

These efforts have finally culminated in UNEP Governing Council (GC) 25/5 decision, which mandates the UNEP to prepare a legally binding instrument on mercury that could include both binding and voluntary approaches, including interim activities reducing risk to human health and environment. Development and completion of the contents of this has been long and highly consultative, involving a series of intergovernmental negotiations, commenced in 2010 and is required to be completed by 2013. With the major objective being efficient and effective mercury management it aims at:

- Reduce of supply of mercury and enhance the capacity for its safe storage.
- Reduce the demand for its use in products and processes.
- Reduce the international trade of mercury and
- Reduce the atmospheric emission of mercury.

Three rounds of intergovernmental negotiations have been completed and the draft instrument with various articles and many options are being discussed and negotiated among the countries. The process of consultations and negotiations though highly transparent are indeed complex, as the process attempts to address extremely diverse needs of various nations. The initial phase of the consultations focused on identifying the issues and concerns around mercury, while the subsequent discussions among nations is on the nature of the instrument, its specific provisions and its effectiveness, accommodating the specific needs of a country.

The ongoing conversation on the issue has at times tended to create a sharp divide between the developed and the developing countries. While the developed countries push for stronger

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EDITORIAL

How green is green?

The upcoming Commonwealth Games, has the capital city of New Delhi abuzz with the word 'green'. There is much talk of greening the games. Ministers and citizen's alike are holding meetings to celebrate this. It seems that 'greening' has acquired the proportions of a virtue, and a passport of good behaviour. That is a welcome sign, for previously it was an effort to even bring such a notion to the table. However, is this real, or is this mostly 'greenwash' entailing superficial actions, with no real benefits? Let us see.

Over 100,000 trees have been cut for the games, leaving many streets bare and dusty. Previously soft, water absorbent earth stretches such as in flood drains (which streak through the city), grassy pavements, hedges on central aisles have been replaced by heat emitting concrete, poured mercilessly over the earth to make roads and parking lots. Large tracts of wooded areas, such as the 27.7 acres Siri Fort sports complex (Charles Correa report to the Supreme Court of India) have been cleared to make stadiums. The riverbed has been converted from a sandy bank to athletes' residences, metro stations, flyover stretches, power stations, bypass roads and barricaded off. Several large populations of people living in shanty towns have been put out of sight on the outskirts of the city. The Delhi Ridge forest, previously a hallowed ground, has now been dug up of the metro lines, and is being surrounded by high walls to prevent illegal entry by any destructive other!

Delhi's waste generation is higher than ever. Urban solid waste exceeds 7000 mt per day and the landfills are choking. As a remedy, the municipality wishes to convert the reserve Ridge forest into a landfill. Less than 70 % of its 60 mt of medical waste is collected or treated properly even as over 17 incinerators continue to pollute the city, all of which are located in Government Hospitals. Hazardous waste to the tune of over 5000 mt per annum continues to be produced from its large number of metal, steel, electroplating and recycling units. Over 12000 mts of e waste is recycled under very hazardous conditions each year, throwing up strong acids, heavy metals, dioxins and furans into the air and water. Now as we have seen recently, city hospitals may be throwing out their radioactive waste in scrap yards, posing a deadly danger to people. Mercury is freely available in chemical markets here, which are a tinderbox anyway. Most of its 17 sewage treatment plants work below capacity, and mix the 'recycled' water back into the untreated drains, only to be dumped into the now dead river Yamuna. The coliform count here exceeds all numbers and even if it is completely cleaned there is no fresh water in it anyway – only sewage.

Meanwhile those who are earning their livelihoods from recycling waste continue to be more marginalized. There is evidence of new exploitations by the companies which have taken over water collection activities through PPP arrangements, as they now wish to 'corner' the large over 10 crore rupee trade as annual trade on plastics and metals. The government cannot decide if such people provide a service to the community or not. It swings between ignoring them, or outrightly banning them. The poor are not welcome in the city. On the other hand, the city has over 50 million vehicles already, and this is a growing number. Car parking takes up more space than the non-existent pedestrian walks, and aggression on the road belays any claims of Indians being of a peace loving nature. While the elite use more than 450 liters of drinking water per day, many cannot avail of even 30 litres. The ground water table is falling rapidly. Even so the sales of bottled water at 10 rupees liter is soaring which is incomparable to the 3 rupees per thousand liters supplied by the Jal Board. Who says the city cannot afford better? The list can go on.

So how 'green' can a Commonwealth Games be? Energy saving and waste collection in a few buildings stadium, seems like a bad joke. Try walking on the grass during the 45 deg C mid day heat, and then hop skip and jump on the burning 'concrete'. Green is not a word to be trivialed with. It takes work to earn that 'badge'.

Ravi Agarwal

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provisions and strict timelines, the developing countries negotiate for a more flexible term of engagement with the treaty. The third intergovernmental negotiations also brought forth the issue of resource availability and the mechanism for efficiently managing it. Developing countries apprehend constrains in treaty implementation due to lack of resources on account of adoption of new technology in products and processes.

The Indian delegation has also been actively voicing their concerns on resource availability and the most appropriate mechanism for accessing these funds by countries. The bleak global economic scenario poses another serious challenge to the donor countries.

Another alarming issue in the third intergovernmental negotiations has been of emissions, most developing countries are opposed to the idea of a mandated limit for emissions as they are largely dependent on coal based power plants for their energy requirements. Both India and China are bound by common interest on the issue of emission, their major source of energy being coal. Their contention being that the per capita energy consumption is much lower than developed countries and any attempt to limit emission will adversely impact growth and poverty alleviation programs. The Indian government has taken a strong non-negotiable position on this issue, seeking a voluntary approach in dealing with emission and is supported by China, making it a very sticking issue and thus requires some deft negotiations to break the impasse.

While the position on mandatory emission levels for all thermal power plants has its own merit, it is though difficult to understand the argument of voluntary approach on mercury management on all other articles covering issues of trade, storage, products and process etc. put forth by the Indian Delegation. India does not mine mercury and has significantly reduced its total mercury consumption owing to the shift in the chlor alkali industry and is perhaps best placed to assume a leadership role in this treaty negotiation.

The two major sectors using mercury in India are lighting and healthcare industry, which are perhaps not so difficult to deal with and can be best, negotiated even under the larger ambit of legally binding instrument. A more open conversation in house would be most appropriate mechanism for developing a national position on such issues rather than a closed room approach, with no information to the larger population, which in turn suggests that the communities have no opinions or thoughts on such issues and need not be consulted.

The global instrument on Mercury will go through a few more rounds of intergovernmental negotiations before being finalized and implemented. While the articles of the treaty are in place, it is the issue of exemptions and concessions that the countries negotiate which is dictated by the economic interest of respective countries. The treaty is likely to be finalized by 2013 but its effective implementation by countries is likely to be a long journey, till then we all have to live with varying amounts of mercury in the environment.

– Satish Sinha
Associate Director, Toxics Link

FEATURES

Bio-Medical Waste and Technology

Bio-medical waste (Management and Handling) Rules have been in force for last thirteen years. The major focus in all these years has been on training and awareness of the hospital staff, segregation and lesser dependence on technology, monitoring of technology operations and shifting from polluting to non-polluting technologies. The government, the hospitals and NGOs worked hand in hand and medical waste management showed a good trajectory in the initial years with some important guidelines and amendments coming through.

The Rules suggest four technologies for waste management and leaves the scope open for approval of any new technology, which may be found appropriate by a national level committee. Various technologies keep coming for approval of the board and each episode is a learning process for people who analyses these new concepts.

As a common man we would favor anything that works (i.e. does its job of disinfection and mutilation), is low cost, has minimum energy, manpower and space requirement. And in this era of green citizen we also think of the carbon footprints of the new technology with the existing ones.

Logically then, we would expect our national experts to think on the same line and even more extensively. But the market forces work differently; they are interested in making business by proposing newer innovations and ideas. Depending on the technology and the market needs the marriage may work/ even fail at times.

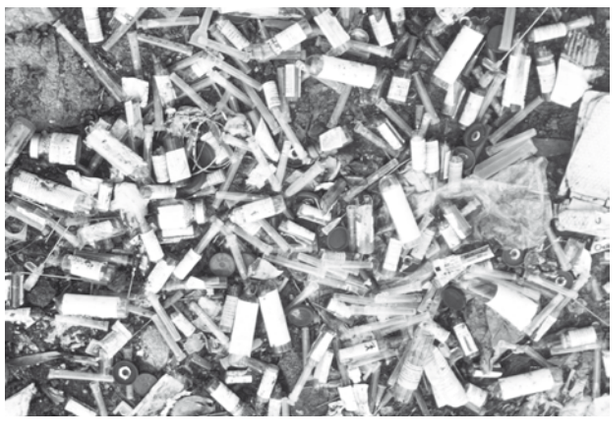
Technology and Medical waste

Whenever medical waste is discussed technology proponents gear up against segregation. The medical fraternity also joins to echo the concern with poor segregation and proposes to do away with it. What some people fail to realize is that, in this age of climate change and global warming, segregation is the key to sustainability.

When our hospitals segregate, disinfect and mutilate their waste to put it through the recycling process, they cut down their carbon footprints. Through waste management the concept of environment management has got instilled in the ideologies of the hospitals. The national average of Bio-medical waste generated/bed/day stands at 300gms, thus segregation is happening and should be encouraged further and not discouraged.

Time and again various technologies come up for approval to the authorities and market themselves on the basis of convenience, reduction of infections, reduced work load (i.e. dissuade segregation) and foremost one stop solution for all waste.

What we need to understand is that we always had that solution- incinerator was proposed in 1996 draft Rules as a one stop solution, but it took a Public Interest Litigation (PIL) for the country to realize that it was more of a problem than a solution. Waste out of sight is not really out of mind but is actually in the air, water, soil and finally in our mind and bodies. The chemicals released through the burning of mixed waste are proven carcinogens. Other non-burn technologies which favor mixing of waste and then shredding it creates big blocks of waste needing landfill. In the process they increase pressure on the landfills and take away important and valuable resource out of the product chain and cause more mining/ production of virgin material. The Indian Bio-medical Waste Rules 1998 are very green and progressive; they speak about segregation on the basis of material and propose different technological intervention based on that. No new technology should be allowed to play with the spirit of the Rule of the land. Segregation is here to stay and everyone should gear up to increase it rather than looking at ways of evading it.



When we challenge any technology on the cost front we are met with oppositions like- cost is not an issue, infections are bigger concerns, let cost factor be driven by the market forces etc. Cost is a big concern in a developing country like India, which works within a tight roped budget. The introduction of any new system in the healthcare sector has to be carefully studied because the per capita income spent on public health in India is among the five lowest in the world. The total expenditure on public health is only 1.1% of GDP (2009). We cannot afford to approve a technology and let enormous public money to be spent before realizing that a particular technology is not viable. We have to take upon ourselves the daunting task of the black hat and analyze each technology so that nothing causes any damage to our already overburdened health system. Infections are a big concern to us and it is the sole driver in our crusade against medical waste mismanagement for over a decade now. However, we are looking more for managerial and personnel interventions which are much more effective and needed in medical waste management than technological interventions.

Comparing data from 2009 and 2006 one can see a rapid surge in the total number of healthcare facilities by 75 %, leading to an increase in waste generated/ day by 27%. But the percentage of untreated waste stands reduced by -35%.

Technology is a crucial part of solution for medical waste management in the country and there is a need of innovation in the field. As an environmentally conscious country we should be looking at new greener technologies, which are adjudged not only on their technical quotient but their environmental quotient as well.

–Anu Agarwal
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India's National Implementation Plan on Persistent organic Pollutants: A Half Hearted Approach

Persistent Organic Pollutants (POPs) are chemical substances that persist in the environment, bio-accumulate through the food web, posing adverse impact on human health and the environment. The Stockholm convention is a land mark global treaty to protect human health and environment from the impact of persistent organic pollutants (POPs). The Convention was adopted in May 2001 and came into force on 17 May 2004. India actively participated in the International Negotiation Committee (INC) of the convention and ratified the convention on 13 January 2006.

Article 7 of the convention is considered the most important aspect of the convention, which has urged the parties to develop the National Implementation Plan (NIP). The NIP aims to have a guidance document that discuss how parties aim to meet their obligations under the SC. As per the mandate of the convention (Paragraph 1 of article 7), NIP was to be submitted to the conference of the parties within two years of the date on which this convention enters into force and further it will be updated every two years.

Paragraph 1 of Article 7 of the Stockholm Convention states the following:

Each Party shall:

(a) Develop and endeavor to implement a plan for the implementation of its obligations under this Convention;

(b) Transmit its implementation plan to the Conference of the Parties within two years of the date on which this Convention enters into force for it; and

(c) Review and update, as appropriate, its implementation plan on a periodic basis and in a manner to be specified by a decision of the Conference of the Parties.

India, a key negotiator of the Stockholm Convention, has submitted its NIP, in April 2011, two years after the proposed deadline of submission of the plan. The key agencies from the govt. involved in the process are the Ministry of Environment and Forest, Pollution Control Board, Ministry of Agriculture, Ministry of Chemicals and Fertilizer (MoCF), the Ministry of Power, the Ministry of Health and Family Welfare and the Ministry of Science and Technology (MST). Apart from these government agencies, United Nation Industrial Development Organization (UNIDO) has also been involved in the process of the development of the national implementation plan.

Is NIP a Half Hearted Approach?

Since time immemorial, India has contributed immensely to the promulgation of Environmental Conventions and Treaties at international level. However when it comes to the implementation of the laws on ground, India's commitment to enforce these laws at the national level have always been questioned. The situation is more or less similar in case of management of persistent organic pollutants.

Though India was a significant player in the Stockholm convention process; however, it submitted the national implementation plan only after two years of the proposed deadline. It was explained that the demographic complexity and other reasons were the factors behind the late submission of the report. However, even China has a complex system like India, yet it submitted the national implementation plan in 2007. Further, the independent evaluation conducted recently, on the national implementation plan has given unsatisfactory remarks and has major shortcomings in the achievement of the objectives.

Flaws in the Process of NIP

The evaluation finds systemic flaws in every step of the development process of NIP. Some of the serious gaps identified are: delay in signing the contract, lack of proper management and coordination, inadequate document control, lack of regular consultation with the concerned ministries, unfocused monitoring, and mismanagement in administrating of the fund meant for the project. Even the evaluation has identified misleading statements, poor scientific approach, adopted in preparing the report.

Inadequate Capacity Building

Capacity building and institutional strengthening are some of the important outcome of the project. Although the evaluators are satisfied with the progress of institutional building of POPs in NEERI, NIIST and CPRI they however, have expressed concerns on the capacity building of MoEF & the CPCB on the issue of POPs. It has stated that strengthening the capacity of MoEF on the issues would have led to an effective policy implementation and enforcement of POPs.

Poor Project Monitoring and Evaluation

The evaluation report has identified poor monitoring and evaluation of the projects as some of the major shortcomings. There were no smart objectives, the work plans were either rudimentary or non-existent and were not updated regularly.

Issue of DDT has not been addressed properly

The evaluators have raised serious objections on the responsibility entrusted with the Hindustan Insecticides Limited (HIL), for reporting on the use of DDT and other alternative. This is a clear case of conflict of interest as the commercial interest lies with the DDT. Thus, there is no adequate assessment of alternatives of DDT, including the expected costs of environmental amelioration for soil and water contamination, resulting from the use of DDT. Perhaps proposing suitable alterative could have jeopardized the business interest of HIL. Also, there is a claim that "DDT should not be used in Agriculture", however NIP has identified that DDT is being used for agricultural purpose but the samples are not being tested.

Lack of Stakeholders' Participation

In the evaluation report it has been clearly stated that, there is a lack of adequate stakeholder consultations and appropriate use of skills, experience and knowledge of a wide range of appropriate government entities, NGOs, community groups, private sector, local governments and academic

institutions in the design, implementation and review of project activities. Thus, the approach to NIP is not consistent with the requirements of the Stockholm Convention that requires consultation at every stage of the Project.

Finally, although Government has tried to clarify its stand and approach in preparing the National Implementation Plan, however the evaluators have rebutted the claims and explanations of the government. The half hearted approach of the government to address the POPs will have detrimental impact on the environment and health. Thus, it seems that it is a missed chance for India, for an effective management legacy to handle the issues of POPs, and a clear violation of the letter and spirit of the Stockholm Convention.

Sources:

1. www.pops.int
2. Independent Evaluation: INDIA: Development of a National Implementation Plan in India as a First Step to implement the Stockholm Convention on Persistent Organic Pollutants.

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UPDATES

Public Lecture on Nuclear Safety and India

As a port of the Environment and Health Public Lecture Series Toxics Link in collaboration with India International Centre (IIC) organized a Public Lecture on 2nd May, 2011 titled, "Nuclear Safety and India". The objective of the lecture was to discuss and share the facts and concerns on the issue.

Dr. Suresh Kumar (Assistant Professor & Radiological Safety Officer (RSO-1), Department of Physics & Astrophysics, University of Delhi) presented on Nuclear Radiation and Nuclear Safety in India. He briefed on radiation and explained the concept of radiation where he said that radiation meant, the flow of energy through space. There are many forms of radiation and it becomes harmful when it has enough energy to remove electrons from atoms. The process of removing an electron from an atom is called ionization. Visible light and UV light are examples of ionization radiation. Background radiation levels can vary widely from place to place.

He talked about the comparison of administrative, regulatory and biological effect doses of radiation which he explained as in partial body exposure and whole body exposure.

Further, he shared the major steps needed to avoid radiation i.e. time, distance and shielding. Less time means less radiation exposure. We should use RAM only when necessary and should dry runs without radioactive material. Identify portions of the experiment that can be altered in order to decrease exposure times. Should shorten time when one is near RAM. Obtaining higher doses in order to get an experiment done quicker is not "reasonable". This will result in minimizing the dose of radiation. Also the frequency of regular inspections is a must.

He also talked about the detection of radiation and the radiation detectors and materials concern for nuclear safety.

He further explained that the purpose of the basic safety standard is to establish basic requirements for protection against the risk associated with exposure to ionizing radiation and for the safety of radiation sources that may deliver such exposure.

The next speaker was Mr. R. Sreedhar (Chariperson, MM&p – Mines, Minerals & People). Mr. Sreedhar emphasized on the need to understand the physics of the health of the people residing in those places. Briefing on the dangers posed by uranium, he said that mines are such that uranium loads detected are clearly seen in the plants in nearby area. It is highly soluble in water which results in getting it in the food chain and also results in acid rain. Even low level of radiation for a long time is highly dangerous. He explained how the nuclear power plants effects health by citing examples.

While Mr. Praful Bidwai (Senior Journalist) talked on the facts of radiation and nuclear power, effects on the public and need to reconsider the nuclear power safety and security measures. Radiation is unsafe in all doses; there is no level below which it is harmless. It is a fact that radiation cannot be eliminated. We can best protect ourselves. However, this does not stop exposure. Uranium mining workers, transport, operations & maintenance reactors as well as occupational workers affected. The impact can be seen as premature birth, miscarriages, genetic imbalance, cancer; incidents are four times higher in those villages which are in close proximity to these places. Nuclear reactor generates lot of heat. Occupational worker and the local residents face great dangers of nuclear reactor.

During the question and

answer session lot of questions on the safety of nuclear power station. Questions were raised on the distance where the accident occurs and on the safe distance from the place and also on the radiation at a particular level and the segregation of the zones was of much concern. Ways of protecting the people residing in nearby places were also discussed. There were queries on the fourth backup and the cost of energy were also from the audience.

Mr. Ravi Agarwal (Director, Toxics Link) moderated the session. More than 30 participants attended the session.

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Public Lecture on "Food Security Bill"

Toxics Link in collaboration with IIC organized a public lecture on 5th August 2011 on 'Food Security Bill' and the several anomalies, issues and concerns surrounding it. Mr. Satish Sinha (Associate Director Toxics Link) inaugurated the sessions by welcoming the panelist and the audience. The panelist included eminent speakers like, Mr. Biraj Patnaik, (Principal Adviser to the Commissioners of the Supreme Court), Ms. Dipa Sinha, (Right to Food Campaign), Mr. Nitin Sethi (Assistant Editor, The Times of India).

Mr. Biraj touched on the history and the background of the Food Security Bill and its moral and political imperatives. He elaborated on the broad set of expectations the Civil Society had from the bill and how it came crashing down. He also threw light on the Nutritional emergency the country faces despite a robust economic growth, live hunger, high nutritional emergency, malnourishment, high infant mortality rates.

Ms Dipa, dealt into the background and the history of the Food Security Bill and the causes of its failure to meet the various expectations that Mr. Biraj pointed. She also threw light on the campaign draft that seeked to serve as a middle ground and stressed on universalization and expansion of the Public Distribution System (PDS) coupled with decentralized procurement and storage system. She also pointed that the bill did not touch upon any of the key provisions like malnourished children, starvation, death, pension, maternity entitlement, destitute feeding and food for adolescence.

Mr. Nitin Sethi ended the discussion on an optimistic note. Despite the overwhelming apprehensions surrounding the much contentious bill, Mr. Nitin saw some hope. He pointed out that presently the only big ticket scheme for the government is the Food Security Bill and that the govt. will have to top on this issue by making it more expansive when the time demands.

Questions were raised on the fine distinction between Right to Food and National Food Security Bill, use and role of National Food Commission and the State Food Commission. There were more than 35 participants in the session from various fields like the University of Delhi, Agriculture Research Institute, Hospitals, World Bank, FAO UN, NGOs, Funding Agencies, Embassy, Film Maker etc.

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Public Lecture on "Yamuna and the City – Natural or Ornamental"

Toxics Link in collaboration with IIC organized a public lecture on 11th December 2011 on 'Yamuna and the City – Natural or Ornamental' to discuss the ideas surrounding the landscape of the river.

Mr. Ravi Agarwal (Director Toxics Link) inaugurated the sessions by welcoming the Panelist and the audience. The panelist included eminent speakers like, Mr. Manoj Mishra (Yamuna Jiye Abhiyan) and Mr. Kuldeep Singh (Town Planner).

Mr. Manoj Mishra gave a brief insight into the background and the origin of the river. Despite the fact that the city has no other water front except the Yamuna, the city has invaded the riverbed and in turn discharged all its waste into the river. Tracing down the history of the river he threw light on the bleak scenario of the river and its floodplain that are striving to stand the onslaughts of mankind. He also touched on the towering follies of the DDA and said that from 1999-2008 the river witnessed the most ill-fated phase; it saw no floods and everything that could have gone wrong with the river and the riverbed ensued. Many unauthorized colonies lying on the riverbed were removed as that they were polluting the river, however the Yamuna bank Metro Depot Station was approved; also a large part of the bank was allocated for the Common Wealth Games Village and the Delhi Transport Corp - all invading into the flood plain.

He urged for appropriate planning that could save the river and equip the city and the river for the worst scenario.

While Mr. Kuldeep Singh, on a pessimistic note said that in the last few years a lot of flood plain of the river has been lost and will continue to be so , for various reasons the most important being the absence of any positive scheme.

Due to the expanding population land is required for various purposes like institutional developments, roads and transport. Owing to the mounting pressure this land comes from the river, as the river has the potential to generate high value

land. The public authorities get inclined to move in that direction and one can gauge the consequences. Flood plains are being lost, the river is being channelized and commercial exploitation of the river is taking place.

Also, there were some valuable insights from speakers like Mr. K.T Ravindran, who expressing his view said that it was best to leave the river alone rather than exploit it. He said that the river required ecological expertise which the DDA lacks and emphasized that the DDA should be trained in matters pertaining to hydrology and ecology.

More than 30 participants were from various fields like the Heidelberg University, Germany, NGOs, Media, and Film Makers etc.

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Roundtable Meeting on "Standards and calibration of mercury-free Measuring instruments in healthcare sector in India"

Mercury with its toxicity is a serious issue, especially as far as its usage in healthcare sector is concerned. Being a toxic material, mercury causes damage to human as well as the environment through the process of biomagnification and bioaccumulation. Lot of studies have been carried out across the world, on the usage and disposal of mercury and its impact on environment and human health over the period. Toxics Link has played a significant role in sustained campaigning for reducing and finally eliminating mercury usage in health care sector in Delhi and across India.

With the exhaustive efforts of Toxics Link since 2004, phasing out of mercury from government and private hospital and healthcare sectors has been initiated. Various conferences and meeting were organized at national and international level, following which, the central government issued a guideline for phase out and replacement of mercury equipments with safer and better alternates by the year 2011. Once the guidelines were placed at central, state and institutional level, issues like storage or disposal of surplus mercury devices and standardization and calibration of mercury free measuring instruments emerged, which was partially resolved in the first round table meet of July, 2010.

Toxics Link organized second round table meet on 1st June, 2011 to discuss standardization and calibration of mercury free measuring instruments, used in healthcare sector. The meet was attended by various regulatory agencies along with representatives from hospitals and healthcare sectors. Constant calibration and standardization of the instruments is a big problem for mercury alternatives. Doctors from hospitals doubted the accuracy of the mercury free instruments and their manufacturers, which actually lead them to frequently change the vendors and further cause rise in patient care cost.

Dr. T.K. Joshi, Centre for Occupational & Environmental Health highlighted the existing rules on banning mercury instruments in healthcare centers, which is not mandatory but a voluntary one. This law prohibits the government from banning mercury-based products from manufacturer or users. Dr. A.K. Sharma of Legal Metrology Department reminded about the combined duty of central and state Government for successful implementation of the law, as the presence of law alone would never solve any purpose.

The major outcome of the meet were making standards mandatory and putting mechanisms in place for regular and appropriate calibration and also to get the manufacturers involved in the process.

Mr. Ravi, being a part of the stakeholder was of the opinion of bringing a common consensus on tools or benchmark to solve the calibration problem, which manufacturers can follow and by which doctors can verify the products. Standardization and calibration of healthcare equipments has to be made mandatory, for which a central board consisting of members from each sector would be helpful. Collaboration between Ministry of Health and Family Welfare and National Physical Laboratory (NPL) could work out the best strategy and solution for the calibration issue, where as the state government can take initiatives in providing infrastructures for calibration and standardization of the non-mercury instruments.

– Kankana Das
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Issues and Challenges for the Implementation of E-waste Rules

Waste Electrical and Electronic Equipment (WEEE/E-waste) is one of the fastest growing waste streams in the world today. The last two decades have also seen tremendous growth in the use and discard of electrical and electronic goods in India. E-waste management in India suffered from a number of drawbacks, prominent among them are lack of regulatory mechanism, poor awareness and reluctance on part of the stakeholders to address the critical issues.

In recent times, there is a growing recognition of the E-waste problem in India at the national level and the Ministry of Environment and Forest has notified E-Waste (Handling and Management) Rules, 2011. The upcoming Rules assign responsibilities to all stakeholders and will impact all users, including bulk users and individuals. However, there are several challenges and issues for effective implementation of this. In the wake of the E-Waste Rules coming into force in May, 2012, Toxics Link saw the need to facilitate discussions and information exchange among the key stakeholders and organized workshops in Hyderabad and Gurgaon, two cities with large generation of E-waste. The workshop aimed to discuss the issues and challenges related to E-waste management and also look at

the preparedness of different stakeholders in the city and the state to deal with the upcoming Rules.

The **Hyderabad workshop,** organised on 24th November 2011, saw an overwhelming response and there were more than 100 participants from various fields like the research institutes and colleges, Municipalities -Solid Waste Management Division AP, multinational companies, civil society and the media. Sri B. Janardhana Reddy, I.A.S. Director Municipal Administration GoAP, Chief Guest of the workshop said that "waste in any form is not completely a waste in real sense" and stated that E-waste management should focus on reduce, reuse, and recycle.

Various issues related to e-waste generation and management were discussed through presentations from Toxics Link, Central Pollution Control Board, Andhra Pradesh Pollution Control, Infosys, Mahendra Satyam, State E-Governance department and also from State Municipality department. Mr. Satish Sinha, Associate Director, Toxics Link expressed hope that this was the first step and will encourage stakeholders in the state to be more active. He urged the Government to start working towards sustainable management of E-waste.

In the **Gurgaon workshop,** held on 15th December 2011, Mr. Satish Sinha pointed out the challenges the country faces in terms of phenomenal growth rate in the electronic industry leading to phenomenal rate of waste generation, with the infrastructure for managing the waste being the same- a network of informal sector with its own challenges and hazard. There were 60 participants. The participants of the workshop included the representatives of the Central Pollution Control Board, Corporate business houses, I.T companies, EEE and recycling industry, Educational and Research Institutes, Media houses and Civil Societies.

The list of speakers included Satish Sinha and Priti Mahesh from Toxics Link, B. Vinod Babu from Central Pollution Control Board, Arjun Balakrishnan from Panasonic India, Deepak Ohlyan from Dell India, Rachna Arora from GIZ-ASEM and Sanjay Saxena from Greenscape Eco Management. Some significant recommendations were made on E Waste management that included incentivizing the organizations, awareness and education program including the informal sector and the consumers, setting up fixed targets and integration of the informal sector.

– Priti Mahesh
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Workshop on "Toxic Flows in WEEE Plastic"

In India, it is estimated that around 4.8 lakh tonnes of e-waste is generated annually, with 95% of the waste handled by the informal sector. Plastic, one of major constituents of E-waste, has a huge potential for recycling and is recycled mainly in the unorganized sector in India. Presence of additives and chemicals in plastic waste and its recycling processes raises concerns of human health and environment.

Toxics Link in collaboration with Swiss Federal Laboratories for Materials Science and Technology (EMPA), State Secretariat for Economic Affairs SECO and Swiss Plastics Association that has been engaged in studying the WEEE plastic recycling in India, organized a multi-stakeholder workshop, on "Toxic Flows in WEEE Plastic," at New Delhi on 26th August, 2011.

The objective of the workshop was to sensitize the participants on the environmental and health concern emerging from improper recycling of chemically contaminated plastic, in particular chemicals like brominated flame retardant (BFR) present in electronic products. It also endeavored to provide a platform to all the stakeholders for a healthy discussion, knowledge and experience sharing.

More than 60 participants attended the workshop that included representatives of the Ministry of Environment and Forest, Central Pollution Control Board, recycling industry, Embassies, educational and Research Institutes, media houses and civil societies.

In the inaugural session, Mr. Ravi Agarwal (Director, Toxics Link) briefed the participants about the study undertaken by Toxics Link. Mr. Rolf Widmer (EMPA) elaborated on the project of plastic recycling in Delhi and said that the project seeked better integration of the existing plastics recycling sector into the globalized market for secondary raw materials. Martin Strub (Deputy Chief, Swiss Embassy), Chief guest, congratulated Toxics Link and EMPA for the initiative of the research study and said that the study on plastic recycling constituted another significant component of co-operation with India and endeavors to bring forth successful collaboration in future of plastic recycling in India. Dr. Saroj, (Director, MoEF), appreciated EMPA and Toxics Link for the focused work on E-waste and pointed the repercussion of any waste especially E-waste. Mr Satish Sinha (Associate Director, Toxics Link) gave a brief insight into the enormity of the problem particularly in India where recycling is done largely by the informal sector.

This was followed by a technical session where, Dr. Mathias Schluep (Technology & Society Lab, and EMPA) presented on the plastic study undertaken in Europe. Priti Mahesh & Prashant Rajankar from Toxics Link made shared the findings of the study. Mrs .Mahesh further gave an insight on plastic waste flow and mapped the major hub of plastic waste recycling in Delhi. She also elaborated on the recycling process carried out by the informal sector and its adverse impacts. Mr. Ravi Kumar Agarwal (All India Plastic Industries Association), who represented plastic recycling industry, spoke on the industry perspective on the issue and briefed that the bottlenecks lay in collection and segregation.

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Bio-Medical Waste Management (Regional engagements)

The management and disposal of wastes in India largely in cities leaves a great deal to be considered. There is an absence of any appropriate mechanism for disposing the bio-medical wastes generated in the health institutions so far. It is largely done through indiscriminate burning, causing serious health and environmental implications. Problem attains a mammoth status when this small quantity of infectious and hazardous waste is mixed with the innocuous bulk of general waste. The fact that the country

lacks appropriate procedures for handling, transport, treatment, and disposal of bio-medical waste, presents a grim situation. Also, High mercury (a neurotoxin) usage in health care industry marks a dangerous trend.

Toxics Link in its endeavor to bring forth toxics related issues and information in the public realm and foster state level capacity building and awareness generation on the issues organized various regional workshops. The organization in collaboration with state pollution control boards organized regional workshops in Imphal (13th September 2011), Guwahati (18th October 2011), Shillong (15th September 2004), Ludhiana (19th December 2011) Amritsar (21 December 2011) and Bhubhuneswar (17th Nov. 2011-19.Nov. 2011).

Manipur

Toxics link in collaboration with the Manipur Pollution Control Board (MPCB), Institute of Social Research and Development (ISRD) supported by Swedish International Development Agency (SIDA), organized a workshop in Manipur.

Mr. Satish Sinha (Associate Director, Toxics Link) inaugurated the session and gave a brief insight into the challenges faced by the country on the issue and the regulations on Biomedical Waste Management (BMWM). Mr. Minaketan Singh, (Senior Environmental Engineer, MPCB) in his keynote address, shared that some NGOs are working together with MPCB and 80% of the bio-medical waste management has been achieved. However, there is a need for collaborative and coordinated efforts of Municipal Corporation, financial institutes and MPCB.

While Mr. N. Raghumani Singh, (Chairman Imphal Municipal) briefed that collection, burying and proper disposal of syringes and needles, blades and expired medicines needs, appropriate management to prevent unwanted infections. He further emphasized on the need of an effective legislation, which would ensure appropriate disposal of bio-medical waste.

There were presentation by Mr. Minaketan Singh and Dr. Sudhukar Vira, (Senior Medical Officer of Sir Ganga Ram Hospital, Delhi) where the speakers briefed on the Status of Bio-medical Waste Management in the region and the Lessons Learnt in Bio-medial Waste Management at a Tertiary Care Hospital. While Dr. Ragini Kumari, (Senior Program Officer, Toxics Link) deliberated on the national scenario of waste management in hospitals and the major concerns. She also talked on Mercury Phase Out from HealthCare Sector in great detail.

There were more than 50 participants including various stakeholders, the State Health Department/NRHM, Environment and Ecology Departments, private hospitals, Manipur Pollution Control Board, civil society and the media.

Guwahati, Assam

Mr. H. K. Karforma (Additional Director, Central Pollution Control Board, Shillong), inaugurated the workshop held in Guwahati on the initiatives towards making health care toxics free. The workshop was organized by Toxics Link in association with WHO, India, where Mr. Karforma pointed that the ultimate solution for BMWM must be the non burn technology and also stressed on the ban on mercury usage in hospitals. Briefing on the rule on Bio Medical Waste Management (BMWM), Mr. Satish Sinha, (Associate Director, Toxics Link), pointed that despite the existing rules on BMWM which came into being in 1998, there is no proper implementation. He also expressed concerns over the use of incinerators which adversely affects human health and environment by releasing harmful and toxic gases.

Jury Sharma Bordoloi— expressed grave concern on the possibility of identical water pollution occurring in the Brahmaputra of Assam. Talking about the bleak scenario in Guwahati, she pointed that the city generates about 500 metric tons of solid waste per year however; the management is able to compost only 50 metric tons waste annually.

Er. Chandan Bhaduri, (Sr. Environment Engineer, Pollution Control Board, Assam) talked on the Status of Biomedical Waste Management in the region in great detail. Dr. Ragini Kumari (Toxics Link) presented on, "Implementing Waste Management System in Hospital", where she talked on the importance of managing biomedical waste. Further, she briefed on the various forms of mercury and the pathways of exposure.

Mr. H.K. Karforma, concluding the session shared the ways of managing the waste that included: minimization of the waste and the use of 100% unburned technologies; Sterilization of saline bottles in horizontal autoclave; taking care of spillage or breakage of equipments; good knowledge to control spill.

Shillong, Meghalaya workshop:

In his inaugural address, Mr. Satish Sinha, briefed on the fragile eco-system of Meghalaya and pointed the need for proper implementation of Bio Medical Waste Rule.

He also explained the lurking dangers of mercury based healthcare equipment like thermometers and BP instrument (sphygmomanometer). Mr. B. Blah War, (Asstt. Environmental Engineer, MSPCB) briefed on the status of bio-medical waste management in Meghalaya. He informed that there were 662 healthcare units in Meghalaya that required authorization from the Board While Mr. E.Thma (NEEDS-NGO), threw light on the status of implementation of the Rules in selected hospitals in Shillong.

Dr. Ragini informed that a global movement for phasing out mercury from the healthcare sector by 2017 is being initiated jointly by the World Health Organization and the United Nations Environmental Programme, while a Global Mercury Treaty will be in place by 2013. Dr. S. Vira, emphasized on the efficient environmental management practices and economical gain that can be achieved by exercising a proper waste management system.

83 participants actively participated in this workshop.

Ludhiana and Amritsar, Punjab

The Punjab Pollution Control Board in association with the Indian Medical Association and Toxics Link, New Delhi, organized a workshop on the hazards of mercury at Government Medical College, Amritsar. The workshop was attended by doctors and paramedical staff from government as well as private hospitals. It focused on the need for replacing mercury-equipped instruments like thermometers and sphygmomanometer with aneroid-based instrument.

During the workshop, Dr. Ragini Kumari pointed the adverse impact of mercury inhalation due to spillage from instruments that could damage the lungs, kidney and the central nervous system.

Mr. K.S. Pannu (Chairman, Punjab Pollution Control Board), who presided over the workshop in Ludhiana, emphasised that it was high time for a progressive state like Punjab to make its healthcare facilities mercury-free in the coming year. He lauded the hospitals that had volunteered to become mercury-free. While Mr. Kulwant Singh (President, IMA), assured that all healthcare sectors in the city would be made mercury-free.

Bhubhuneswar, Odisha

Toxics Link, in collaboration with PARIBARTA, Odisha initiated a three day state level Training-cum-Workshop on Bio-Medical Waste Management and Mercury Phase-out from Health sector in Odisha.

The 30 districts participating in the workshop were divided into 2 groups; first 2 days were devoted for generation of awareness among the health care providers of the 2 groups on BMWM followed by a ToT for those 5 districts which were going to be the Model Hospitals.

Dr. Sitakanta Mohapatra (Jt. Director (DMET) inaugurated the session where he highlighted the pros and cons of Bio-Medical Waste Management, situation of and other hazardous wastes generated within the facility. Dr. Ragini Kumari, gave a brief insight into the types of medical waste; procedures for treatment; handling and disposal of medical waste; legal provisions related to Bio-Medical Waste Management and Specific guidelines for handling wastes including sharps (Waste Category No 4. i.e. needles, syringes, scalpels, blades, glass). While Dr. S.P. Samantaray, (Sr. Scientist, SPCB, Odisha) threw light on the role of State Pollution Control Board in the Management of Bio-Medical Waste; the authorization system and the standards for treatment, handling and disposal of different category of Bio-Medical Wastes. Dr. B.K. Panda, (Jt. Director NRHM (Tech), discussed about the current status of Bio-Medical Waste Management in Odisha and suggested few remedial steps by which the situation could be improved. Ms. Kankana Das (Sr. Programme Officer, Toxics Link) presented on Bio-Medical Waste Management Rule-1998. Mr. Pravat Ranjan Dash, (Advocate High court, Odisha) spoke about the standard operating and the laws related to handing & management of Medical waste.

Also a group work was under taken with the objective to assess the ASK (Attitude, Skill, Knowledge) of the participants and evoke their opinion about a Model Facility on BMWM. The training facilitators empowered the participants with technical inputs on the types of medical waste; the ways for handling them and the appropriate measures required.

The last day of the training programme was devoted for training of the trainers. Ms. Kankana, briefed on handling needle destroyer.

The regional workshops saw an overwhelming response. The audience actively participated in the deliberations and significant ideas and key proposals were made for the future course of action for proper management of bio-medical waste and phasing out of mercury from the healthcare sector evolved, that included awareness and training of healthcare professionals and staff at various levels, sensitization of all stakeholders and the need of an integrated centralized treatment and disposal facility.

Also, some valuable recommendations on bio medical waste management were flagged in the workshops that included, adoption of decentralized funding partner for waste management; Fixing responsibility and accountability; strict

monitoring and supervision mechanism and sensitization training to the medical as well as paramedical staff; identifying mechanism to strengthen existing regulation/ rules of BMW management through mobilization.

National Workshop on "Issues and Challenges in managing Bio-medical waste in India"

Toxics Link organized a National Workshop on "Issues and Challenges in managing Bio-Medical Waste in India" in association with WHO on 22nd November, 2011 at New Delhi. The Workshop aimed to address the issues and challenges in managing bio medical waste in India at a national level forum.

Mr. Ravi Agarwal (Founder Director, Toxics Link) asserted the need to deliberate on the issues and challenges in the management of bio medical waste in India. Mr. Keshav Chandra (Chairperson, Delhi Pollution Control Committee; Secretary Department of Health) said that BMWM rules were late in inception in India as was the case with all environmental laws and legislations. Briefing on the issue, he pointed the ambiguity surrounding segregation of waste and showed immense concern on the lack of effective mechanism to monitor the poisonous emission from the incinerators. Mr. Satish Sinha (Associate Director, Toxics Link) pointing an alarming trend said that 50% of the bio medical waste was being handled along with general municipal waste. This trend is on a high in the smaller towns where setting up a common treatment facility is not economically viable. He urged for the need to better transparency in the system and stressed on improving the compliance rates.

The first session was chaired by Mr. Birinderjeet Singh, (Chief Engineer, Punjab Pollution Control Board) who focused on plugging gaps in implementing BMWM in India. The other speakers included Mr. Vinod Babu, (Central Pollution Control Board), Dr. Ragini Kumari, (Sr Programme Officer, Toxics Link) and Mr. N.M. Tabhani, (Gujarat Pollution Control Board). Mr. Babu talked on the status of authorization and challenges faced to improve compliance where he pointed out that incineration was becoming more of a problem by itself rather than a solution. The mushrooming of incinerators is the root cause of the alarming situation and feasible solution to this would be to have more Common treatment Facilities. Dr. Ragini presented on the "Journey towards improving compliance: Experience of NGO" where she stressed on the issues in rural and hilly areas and the lack of feasibility of business models of CTF's to operate there and called for better co-ordination between the department of Health and Environment. Mr. N.M. Tabhani presented on "strategies planned for bio medical waste management in the state."

This was followed by a session on Draft BMW Rules 2011, moderated by Mr. Vinod Babu and Mr. Ravi Agarwal, where the discrepancies in the implementation of rules related to bio medical waste management in various states was discussed and it was agreed that there should be a unified way of looking at the treatment of bio medical waste across the country. Also there was a debate on the issue of business interests versus environmental concerns. The lack of clarity on setting up an incineration facility was also discussed in detail and it was agreed that only one Common Treatment Plant should be allowed in the sphere of 150 km.

There was a session on Plugging Gaps in managing medical waste, chaired by Mr. Satish Sinha. Mr. Tapas Saha, (Semb Ramky), talked on the bottlenecks in establishing a Centralized treatment facility. Mr. Asim Chatterjee, (ECO Safe) briefed on managing liquid waste in health care. Also there was a panel discussion on the emerging issues like problems in installing an Effluent Treatment Plant (ETP) and the dangers of cytotoxic drugs and its disposal.

There were numerous recommendations for the CPCB and Ministry of Health and Family welfare. Some of the key recommendations included bettering transparency and monitoring, improving segregation of waste, addressing the ambiguity over the disposal and treatment of linen and bedding, up-gradation of facilities of waste treatment, development of CTF's and disposal facilities.

The workshop was attended by more than 75 participants that included members from the Central Pollution Control Board (CPCB), Delhi Pollution Control Committee (DPCC), Punjab Pollution Control Board, Gujarat Pollution Control Board, Ministry Of Health and Family Welfare, Trained Nurses Association Of India (TNAI), Doctors and hospital administrators from prestigious hospitals in Delhi like Appollo, Fortis, Sir Ganga Rams Hospital, Rajiv Gandhi Cancer Institute and various others from across the country, NGO's.

Training of Trainers on WEEE, Kolkata

The unorganized nature of E-waste recycling sector leaves little scope of promoting the welfare of the workers who are engaged in recycling of e-waste. Hence efforts are required to create an effective channel e-waste management and promote greater welfare of workers engaged in e-waste recycling in the informal sector. The Waste Electrical and Electronic Equipment (WEEE) Recycle Project aims at integrating these objectives and creates sustainable e-waste channels in major metropolitan cities. As a part of Capacity building, a three day Training of the Trainers (ToT) workshop was organized by Toxics Link during 25th to 27th May, 2011, at Kolkata for all the Project Implementation Unit members and prospective trainers.

The ToT began with a welcome address by Mr. Satish Sinha, (Associate Director, Toxics Link). Ms. Sharon Ahmed, (GIZ-ASEM) elaborated on the objectives of the WEEE recycle project Ms. Ahmed said that the project aimed to develop sustainable and environment friendly e-waste recycling collection channels in the project cities; formalize the informal sector and ensure their contribution to clean recycling channels and promote recycling of e-waste using environmentally friendly mechanisms based on scientific and best available practices. There was a session on approaching the informal sector, where the importance of integrating the informal sector for safe management of E-waste, the challenges and the strategies required to approach them were discussed.

On the second day Ms. Priti Mahesh, (Project Manager, Toxics Link) gave an overview of what constituted e-waste, the toxic substances in e-waste and quantities of e-waste generated globally and locally. Ms Mahesh also elaborated on the potential harm from the toxins from e-waste and the need to recycle them. This was followed by a presentation by Mr. Satish Sinha on Occupational and environmental risks related to E-waste. He gave a brief insight into the presence of hazardous substances in e-waste, the possible pathways of direct and indirect contact with these substances, the impact of each of these substances on health and environment; precautionary measures and emergency measures in case of accidents.

On the last day of the training, Dr. Lakshmi Raghupati, (GIZ ASEM) presented on the different environmental policies and regulations governing e-waste. The different responsibility of the producer, dismantler, distributor, collection centers, bulk consumer and consumers under the rule was discussed in great detail.

Some pertinent questions related to the health risks and the ways of exposure, and ways of approaching the informal sector were raised during the training. Some of the participants also shared their experiences during their field visits, especially to the rural parts and spoke about their observations on environmental damage caused by the SMEs

Workshop on "Mercury Phase Out In Health Care Sector" Lucknow

Toxics Link in partnership with Indira Gandhi National Open University (IGNOU) and Chhatrapati Shahuji Maharaj Medical University (CSMMU), Organized a workshop on Mercury Phase Out in Health Care Sector in Lucknow on 24th March, 2011. The objective of the workshop was to sensitize on the issue of mercury in health care sector in the region and provide a platform to all the stakeholders for a healthy discussion, knowledge and experiences sharing.

Dr. M. Subha Rao, Director (MOEF) gave special address and said that mercury was a global problem and efforts at global platform for the replacement of mercury equipments from health care sector. He urged all the state government to take initiative in this regard.

The first technical session was on "Mercury Issues and Policies" which was chaired by Prof. Ashok K. Agarwal and Mr. Satish Sinha.

The second technical session was on Managing Mercury Waste in Healthcare & was chaired by Dr. M. Subha Rao and Dr. B. P. Sharma, IITR, Prof. Peter Orris, Dr. V. P. Sharma, Mr. J. Chandra Babu.

The workshop winded up with a great interest and enthusiasm. The event was attended by a remarkable gathering of more than 80 from various departments. The participants of the workshop include the representatives of Ministry of Environment and Forest, Uttar Pradesh Health System Project, Doctors, Health Care Professionals, Educational and Research Institutes and Civil Societies.

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Press Conference on Double Standard

Toxics link organized a press conference on 29th June, 2011 at the Indian Women's Press Corps, New Delhi on the study published by Toxics Link titled, "Double Standard - Investigating Lead (pb) in Leading Paint Enamel Brands in South Asia." The report is a collaborative effort by Toxics Link, India, the Center for Public Health and Environment Development (CEPHED), Nepal and the Environment and Social Development Organization (ESDO), Bangladesh.

The study is a testimony to the double yardstick followed by the paint majors in the region. The study finds paint majors pushing toxic leaded paints into corners where the issue is less known or there is lax regulation while they phase-out lead (Pb) from paints in India as the campaign here for lead-free paints grows stronger.

The press conference was addressed by Ravi Agarwal, Satish Sinha, Rajiv Betne and Prashant Rajankar from Toxics Link.

More than twenty reporters and journalist from different media houses attended the press conference. The briefing and the deliberation on the issues addressed in the report was covered by many English and Hindi media houses like the Hindu, The Asian Age, Deccan Cronicle Haribhoomi and the NDTV Express. The issue was also covered by the electronic media like CVB News, Aaj Ki Khabar & Tara TV. The press conference was followed by many interviews and queries on the challenging issue.

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Press Conference on Indian CFL

Toxics link organized a press conference on 29th September 2011 at the Indian Women's Press Corps, New Delhi on the study published by Toxics Link titled, "Toxics in that Glow: Mercury in CFLs in India".

The report unravels the disturbing trends in Mercury dosing practiced by CFL manufacturers in India; the vested business interests than are evading serious health concerns. It also lays bare the glaring shortcomings we have in policy and practices for managing the entire life cycle of such devices, which is a that are grossly under addressed issue in the country. In a bid to tackle the grave concerns it addresses the need for a concrete action plan. The press conference was addressed by Ravi Agarwal (Director, Toxics Link).

Journalist and reporters from more than twenty media houses attended the press conference. The briefing and the deliberation on the issues addressed in the report, was covered by many English and Hindi media houses like the Times of India, The Hindustan Times, The Asian Age, The Tribune, DNA, Dainik Bhaskar and the Hindustan. The

issue was also covered as a special story by the electronic media like the Total TV, Aaj Tak, Sahara Samay. Articles on the issue were also published in magazines like the India Today and Down to Earth. The press conference was followed by many interviews and queries on the challenging issue.

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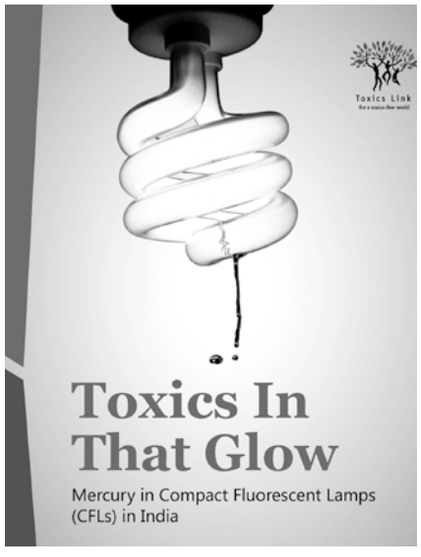
RESOURCES

Toxics in That Glow (Report)

Toxics Link published a study report "Toxics In That Glow; Mercury in Compact Fluorescent Lamps," with an objective to reduce mercury levels in lightening products and flag the issue of its end–of-life management. The study reveals the potential threat associated with CFLs as mercury, a neurotoxin which is an integral component of these bulbs. Higher level of mercury dosing in CFLs enhances the chances of mercury contamination and toxicity. Although, mercury level is strictly regulated in many countries, in India there is no mandatory standard to limit mercury dosing. These lamps are also exempted from the resent regulations on WEE.



Another major concern the study raises is that the introduction of massive amounts of CFLs in the market has led to broken and discarded CFLs, with nowhere to go. Used and discarded CFL(s) are usually dumped with general waste, thinning out mercury in the environment. Mercury evaporates metabolizing into deadly methyl mercury, contaminating food, fish and water and impacting human health, environment and wildlife .The study aims at protecting the consumers from toxics and reminding the industry of its responsibility as well as the government of its mandate to safeguard the citizens from adverse impacts.

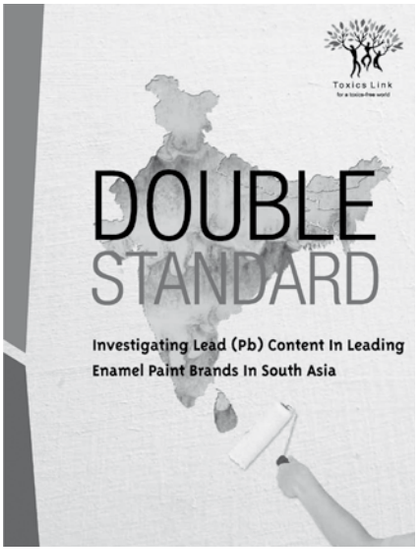
Double standard: Investigating Lead (Pb) Content in leading Enamel Paint Brands In South Asia (Report)

"Double standard", published by Toxics Link that studies the Lead (Pb) content in leading Enamel paint brands and if the acclaimed and responsible multinationals adhere to comparable standards across South Asia. The study is a collaborative effort of Toxics Link, the Center for Public Health and Environment Development (CEPHED), Nepal and the Environment and Social Development Organization (ESDO), Bangladesh.

The report exposes the total lead content present in common enamel paint brands. The major worry in the region is that the countries neither have any voluntary standards nor any standard for lead in decorative paints. Manufacturers tend to take advantage of the non- existent lead in paint standards in countries like Nepal and Bangladesh where lead concentration is alarmingly high.

The study recommends for a stricter mandatory and comparable standard for lead in household paints in the region.

Brominated Flame Retardants; Spreading the Fire (Report), Toxics Link published a report on the Recycling of Brominated Flame Retardant. The study was undertaken to investigate the issue of cross contamination and do a preliminary research on the presence of BFRs in recycled plastics. The study assesses the possibility of exposure of BFRs for Indian workers in recycling units/plants or reusing manufactories.



Brominated Flame-retardants known to leak from the products into air, dust, water, and environment and eventually enter our food and bodies raises grave concerns. Studies globally have indicated the occupational and environmental risk associated with the use of BFRs, especially during recycling of the BFR contaminated plastics. The concern in India is heightened because most of this plastic from EEE (referred in this study as E-plastic) is recycled by the unorganized or the informal sector. There has been no attempt in India to document such process or the resulting exposure. The report suggests for the need of limiting use of certain BFRs both by regulatory agencies and private industries and laying down specific standards for recycling of BFR contaminated plastics.

NEWS

Inter-School Debate Competition

As a part of Yamuna Elbe Art Outreach Programme an Inter-School Debate Competition was organized by Toxics Link in Delhi. The debate competition was a part of the outreach and educational programme of the project "Y" - an initiative of the Ministry of Culture, Hamburg, carried out in the framework of "Germany & India 2011-2012".

The collaborative project centered on the idea of creating ecological sustainable

rivers in cities. The focus of the project was to help in building awareness and importance of the river as an urban entity. The Inter-School Debate Competition focused on Water and River Yamuna. 10 schools participated in the competition. The debate competition was in 2 rounds, as Semi-Final and Final round (3rd & 11thNovember, 2011 respectively). The topic for the debate competition was "Global Water Crisis: Can it be solved through Commodification". The best speaker and best school were awarded with books on river Yamuna and certificates.

Handle with care

CFLs need to be disposed of properly

In the last few years, much emphasis has been placed on compact fluorescent lamps (CFLs) because using them results in significant energy savings. CFL essentially use the same technology as florescent tubes that are to be found in most Indian homes. A CFL fitting that replaces a fluorescent lamp, will usually use 20 per cent of the power that an ordinary, incandescent bulb does, and it will last between six and 10 times the life of an incandescent bulb. No wonder, therefore, even government agencies are promoting CFL use, through subsidies as well as outright replacements of incandescent bulbs. It is, however, shocking that the mercury content in Indian CFLs is 21.21 milligram, whereas in developed nations like the US and the UK, it is 4 to 4 mg.

A major problem for CFL is that mercury is an essential component. Mercury is also highly toxic, and it is especially harmful to the brains of both fetuses and children. Alternatives are, therefore, being tapped to replace it in various devices like thermometers, but when CLF breaks, mercury escapes as vapour that can be inhaled or as powder that can settle on carpets and other furnishings. This can even cause mercury poisoning in extreme cases. Even if the CFLs are not broken, when they are replaced, they should be disposed of properly, so that mercury can be recycled and thus the toxic element kept out of the environment. That, however, is a tall order in a country like India, which does not even have rules regarding recycling, let alone the required infrastructure for it.

The government must take immediate steps to encourage the producers of CFLs to use the latest technology that uses less mercury. There is simply no excuse for producing CFLs that contain such high levels of mercury. It should also take proactive steps by notifying a policy on the disposal of CFL bulbs, and help to create an infrastructure that would encourage recycling, perhaps by providing bonuses to customers who bring in their old bulbs to vendors, who would, in turn give in the bulbs to recycling centers. Energy savings are laudable, unless they come at the cost of contaminating the environment and creating potential health hazards.

Source: The Tribune 1/10/2011 Hazardous mercury levels in energy-efficient CFLs

A year after ban, 60 city hospitals are mercury free

New Delhi, A year after the Delhi government issued a stricture to ban the use of mercury-based instruments in hospitals, as much as 90 kg of the liquid metal has been sold by over 60 hospitals.

This was possible after the Delhi Pollution Control Committee (DPCC) emerged with a unique plan to recycle unused mercury from the city's hospitals by selling it back to private manufacturers.

In 2010, the DPCC directed hospitals with 50 beds or more to minimise the use of mercury and eventually stop using mercury-based instruments.

"More than 60 hospitals are already mercury-free. And, hospitals that have not phased it out, have at least stopped buying new mercury-based instruments. Delhi is probably the only state in the country that will soon be completely mercury-free," said a senior official of DPCC.

The three major sources of mercury in hospitals are thermometers, blood pressure instruments and dental amalgam fillings.

According to Dr. T K Joshi of the Centre for Occupational and Environmental Health at the Maulana Azad Medical Centre, the step to phase out mercury was taken because several of Delhi's hospitals had no idea how to deal with mercury spillage when instruments broke.

"A lot of it just went into general waste, which was incinerated. Due to this, mercury can become air-borne, which is dangerous. Even a momentary exposure to mercury fumes can be very damaging, especially to pregnant mothers and the unborn child. It is even more dangerous if mercury gets into the water supply," Dr. Joshi said.

A study conducted by Delhi-based NGO 'Toxics Link' in 2007 found that nearly 70 thermometer breakages take place each month in a 300 to 500 bedded hospital. The study also indicated that level of air-borne mercury in these hospitals was 4 to 12 times higher than the accepted American standard. A similar study, conducted by Dr. Joshi, will be submitted to DPCC soon.

We found that levels of air-borne mercury in some places are still higher than the accepted norm. Also, there is very little awareness on the part of healthcare workers on spillage and toxicity of mercury," he said.

Anita Industries, a firm that manufactures the mercury-based equipment, is one of the two firms that have bought nearly 50 kg of mercury from hospitals in Delhi over the past year.

"One can get about 75 grams of mercury from BP instruments. Some hospitals give us loose mercury that they have removed from the instruments. We purify it and then manufacture our own BP instruments. We sell these to dealers in other parts of the country and even export it, since Delhi is the only state where mercury has been banned," said Sandeep Kalra, of Anita Industries.

The move, however, has not been welcomed by all doctors, as they do not trust the reading of digital or aneroid instruments. Cost and longevity of the alternative instruments is also a niggling factor for hospitals. Authorities at Chacha Nehru Bal Chikitsalaya said while the hospital has completely phased out mercury, purchase of other instruments will take time.

"High-end digital blood pressure machines are hard to find and are very expensive. But, after testing a few brands we have acquired some reliable machines that are not too expensive. The problem is that frequent calibration is required and this adds to the cost," said Dr. K M Kalra, Medical Superintendent of the hospital.

Source: The Indian Express 8/08/2011

E–Waste imports ban dumped from rules

New Delhi, With India becoming a dumping ground of e-waste from the West which is seriously impacting environment and human health, the draft notification of E-waste Management & Handling Rules, released in May 2010, clearly proposed "banning of import". But the final E-waste Rules, notified this year surreptitiously avoids mention of e-waste imports.

Experts have questioned the purpose of such drafts if the final rules change their main aspects. According to them, this has led to more waste being dumped here. The change is obviously been done under pressure from the recycling industry in India, which wants to make a quick buck.

"Why the Government buckled under pressure from the recycling sector in India is unknown. However, it is unacceptable that while there is no mechanism to collect local waste, the Government is quietly allowing the dumping of waste from other countries, said Ravi Agarwal, director of Toxic Links, an environmental NGO that brings out toxins-related information into the public domain."

The contentious issue was also raised in Rajya Sabha on Wednesday. KN Balagopal questioned Environment Minister Jayanthi Natarajan on management strategies of hazardous e-waste and whether any cases of dumping e-waste had come to the Government's notice.

Natarajan stated that as per the Hazardous Waste Management Rules, 2008, import of e-waste is not permitted from any country to India. However, import is permitted only for recycling with the permission of Directorate General of Foreign Trade and Environment Ministry.

Toxic Links associate director Satish Sinha said, "Our investigations reveal that large numbers of used computer parts including obsolete cathode ray tube (CRT) monitors, printers and photocopy machines-were received at one major port alone, from April to December 2009. E-waste is not 100 per cent recyclable and hazardous remains will remain in India, poisoning our ecosystems."

According to experts, the full environmental burden of handling such waste is yet to be ascertained by the Government.

Source: The Pioneer 04/08/2011

India exporting high lead content paint, alleges NGO

Paint companies in India continue to produce and market toxic leaded paints to neighbouring countries even as they are being phased out from within the country, states a report titled "Double Standard: Investigating Lead Content in Leading Enamel Paint Brands in South Asia" released here on Wednesday. Twenty-seven paint samples of common major brands from Nepal, India and Bangladesh were studied for their lead content.

The report is a collaborative effort by Toxics Link, India, Centre for Public Health and Environment Development, Nepal, and Environment and Social Development Organisation, Bangladesh. "This is a clear case of double standards being followed by multinational paint majors in the region. Overall 63 per cent of the paint samples studied were exceeding the US' 90 ppm limit by 422 times, 44 per cent of samples exceeded the much relaxed Indian Standard limit of 1,000 ppm by over 54 times," said Toxics Link director Ravi Agarwal.

Double standards

"Manufacturers who add high amount of lead in decorative paints in Bangladesh and Nepal are the ones who are also operating in India where their products have lower lead levels comparatively. It is a shame to see paints with lead loaded in them in this day and age. As the campaign in India for removing lead from paints grows stronger, it appears that things are not changing in our neighbouring countries. Our fellow civil society partners in Sri Lanka, Bangladesh and Nepal have revealed the secrets of the paint industry, some of which is in fact based in India. Double standards are unethical to say the least," said Mr. Agarwal.

According to Toxics Link, India still does not have a mandatory lead in paint standards. "The Bureau of Indian Standards has not as yet prescribed any standards for lead in paints despite the issue being discussed for over two years. Hence while some companies have reduced lead in paints after recent exposes, others have not. However, this has not translated into lower lead in neighboring countries, where government regulation does not exist. Both Nepal and Bangladesh don't have any standards whatsoever for lead in paints, voluntary or mandatory. This situation is exploited."

Source: The Hindu 01/07/2011

FILMS

The Earth Story

Directed by:
Megha Mathur and Suchi Tripathi

In the film, the planet Earth is compared to a football that is carelessly being kicked around from one environmentally destructive scenario to another. The film ends with a message – A damaged planet – not a good hand – me – down'

India's Climate fever

Directed by:
Arjun Pandey, British Council Film

Is climate change impacting Human Health? Global Warming has the potential to affect human health in several ways. Voyage through the film to explore that as the planet warms, human beings, plants and animal species face the greatest threat, that of their very existence. Under the threat of Climate Change, the film explores the health security of India.

Last Words of a Dying Tree

Directed by: Avinash Kumar Singh & Geeta Singh, Turtle on a Hammock Films

The film is about the desperate call for restrain and understanding from the point of view of a tree. From the eves of this tree the damaged is caused by greed, conflict, misuse by man is expressed in ten poignant verses.

Quotes from the Earth

Quotes from the Earth have been the first of its kind in the Indian Capital since 2004. Using a discursive platform to highlight environmental challenges at the national and international level through films, which happen to be one of the most powerful medium of communication and discussion. The festival is a collaborative effort by Toxics Link and India International Centre, Delhi. Over a period of two days it aims to bring under one umbrella the persistent and persuasive, with each day culminating into a panel discussion on the theme.

Focusing on different issues, regions, and struggles to give audience a better chance to understand and engage with broader picture of the current status of environmental issues.

Registration for visitors

Entry is free, but prior registration is must

For Sponsorship

If you wish to contribute to raising awareness on the subject, we invite you for supporting the festival by donating, sponsoring or by being part of any of our activities.

Details of the festival

Quotes from the Earth: The Environmental Film Festival (2012)

Date:
6th–7th December, 2012

Time:
9 am to 9 pm

Venue:
India International Centre (IIC), 40 Max Muller Marg
Lodhi Estate, New Delhi - 110 003

Toxics Link
for a toxics-free world

E-toxic listserve

Toxics Link coordinates an electronic discussion group for sharing and disseminating information. If you would like to join the group, please e-mail us at ***tldelhi@toxicslink.org***

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