



## Lead in paints: A serious health hazard in India

If you thought your child is safe in your beautifully painted home think again. Have you ever thought of the possibility of toxicity in the safe haven of your home? In the recently released study by Toxics Link titled 'Brush with Toxics: Lead in Household Paints in India' sheds light on the presence of the heavy metal lead in paints used as home decor. The study reveals the health hazards posed by the paints.

Earlier it existed in gasoline, later found in plastic and PVC toys and now it has resurfaced again in paints. Lead, a toxic heavy metal again plays the role of villain and this time in our own homes. A recent study by Toxics Link reveals that one's encounter with toxicity starts right at home. High concentration of lead, a toxic metal in the wall and wood paints pose a real threat to the health of the occupants especially toddlers and children.

The study took stock of the hazards behind the glitters of paint varieties available in the Indian market. It states that brighter the paint the higher the lead. The most dangerous being the weather coated yellow paint. According to the study yellow coloured enamel paints carry the highest lead concentration while the white enamel paint has the lowest.

Toxics Link conducted the study with a purpose to assess the lead concentration in various types of residential paints and the samples were collected from Delhi and Mumbai and tested at Galson Laboratories, New York.

The relevance of the study in the Indian scenario lies in the fact that very few studies have been done so far on paints in India. Toxics Link undertook the study to deter-

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## The products we deserve!

**A** friend on mine called a large leading paint company in India, to request for lead-free paint. The suave company representative told him that 'lead was good for him and his house' and that it made everything brighter and more durable. My friend was aghast. Having just come back from the US, where lead in paint was restricted as early as 1971, he knew, being a doctor himself, that lead had severe health impacts on growing children especially, and could retard their IQ significantly. He also knew that lead dust from paints in households was a prime source of exposure, as children had a habit of putting their hands in their mouth. He certainly did not want his three year old to suffer that, and was in anguish on hearing what he did from the company.



**The issue of lead in paints was resolved almost a century ago. There is no medical disagreement on its ill effects. Why does the paint industry insist on their warped logic, despite knowing all this for decades?**

The issue of lead in paints was resolved almost a century ago. There is no medical disagreement on its ill effects. In India, where we make oil based primers on walls, and also renew it every Diwali, the exposures can be ubiquitous and high. Why does then the paint industry, insist on their warped logic, despite knowing all this for decades? Most certainly this is not the paint they sell in international markets (unless it may be in Africa!), nor is the paint made by their international collaborators who hail from the US and Europe.

This also demonstrates the lack of consumer education and awareness here. It was the lead in toys issue which hit home recently to worried parents, but lead in toys is a miniscule amount compared to lead on meters and meters in paint on the walls. It is time for consumers to 'rise and be united.' Like in politics, we only get the products we deserve!

*Ravi Agarwal*

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mine the total concentration of lead in decorative paints of all types including plastic and enamel.

### Why lead in paints?

Paints, depending upon the nature of their usage, can be categorized as decorative or industrial. Decorative paints are primarily used on the interior or exterior walls of homes and buildings. Industrial paints find their use in automobile coatings, steel structures, marine coatings and for other high performance purposes.

Lead is added to paint not only to impart colour but also to make it durable, corrosion resistant, and to improve drying. It provides longevity to coatings on walls, woods and metals. A number of lead compounds can be used as pigments in paints such as lead oxide, lead carbonate (also known as white lead) and lead chromates/molybdates. Lead carbonate was historically used for wall paint in households and still is a significant source of lead exposure. Lead chromates, molybdates and sulphates are still widely used. They are inorganic pigments for bright and opaque yellow, red and orange colours in paints.

### Health hazards from lead exposure

Whether the element enters the human system through breathing or swallowing, it targets the nervous system, in children and adults alike. Prolonged exposure will cause weakness in fingers, wrists or ankles. For older people it causes variation in blood pressure and cause anemia. High-level exposure would damage kidney and brain and can even lead to death. In pregnant women it may cause miscarriage. It could also affect the reproductive system in men. Children are most vulnerable to lead poisoning since Lead being a heavy metal settles down easily on the floor and children playing on the floor are exposed to dust around home, which could be contaminated with lead by leaching or scraping of paint.

### The Indian scenario

Almost all developed nations have banned leaded paints and initiated strict regulations for lead content in paint. But India still has no such mechanism to assess the lead presence in paints. All the brands tested for lead concentration as part of the study except one or two contain high level of lead, which is far exceeding the



## Key findings of the survey on lead in Indian paints

- ▼ Most of the enamel paints contain high concentration of lead well above 1000ppm lead standard.
- ▼ Plastic and exterior paints contain low concentration of lead across the brands, the levels are below the Indian voluntary standard of 1000ppm.
- ▼ Majority enamel samples contained more than 600 or 1000 ppm of lead while 61.3 percent of samples had more than 5000 ppm.
- ▼ 38 percent of all samples, including plastic enamel and exterior types contained lead levels above 600 ppm.

voluntary Indian standard of 1000ppm and the US standard of 600ppm.

High concentration of lead in enamel paints is the most worrying part of the whole issue of lead in paints. The study also highlights certain points that need immediate government intervention in the form of a policy change. Asserting for a policy intervention on the issue Ravi Agarwal says there should be a mechanism to regulate and monitor the issue. Besides, the government should take note of it and go for immediate rectifications.

*By Dr. Abhay Kumar*

## FEATURES

### E-waste: Kolkata's new challenge

**D**evelopment always carries adverse impacts, so does India's technological advancement. While the Indian metros are queuing up to be acknowledged as IT hubs, no one is seen concerned of the E- waste piles in its backyards. As the country becomes more and more tech savvy the issue of E- waste is no more a back yard issue. Now it is in the forefront.

India is fast reaching at the receiving end of its much-hyped technological growth as its congested metros are getting further polluted by e- waste, an issue which is not yet addressed seriously.

After Mumbai, Bangalore, Chennai and Hyderabad it is the turn of Kolkata. Though joined the race 'to be IT savvy' a little late, the city is far advanced in E- waste generation, an indispensable consequence of technological advancement.

E- waste, which could generally be defined as waste generated from the discarded electronics and electrical goods has become an environmental and health hazard of gigantic proportions. The toxic nature of this waste, due to the presence of materials like lead, mercury, cadmium etc, makes it a critical issue to be dealt with.

A recent study by Toxics Link held in collaboration with Centre for Quality Management System, Jadavpur University indicates Kolkata's e- waste generation to be alarmingly high. It is important to note that the study was mostly limited to e-waste gen-

erated from PC's, television and refrigerators. The findings of the study say that the city alone generates 9000 tonnes of E- waste annually.

The developing countries across the world are fated to burden with the e- waste discarded by the rich developed nations. Unfortunately India is a favourite dumping yard of e- waste for many developed nations. The country has to receive large quantities of toxic waste from abroad besides, the growing domestic load.

The study also attempted to track the dumping of such toxins from other parts of the country and the world as well. Informal information collected as part of the study reveals that Kolkata's Kidderpur dock is one of the major landing points of E- waste. The study also highlights the current recycling practices in the city, which is found unhealthy and hazardous.

Though the city generates around 9,000 tonnes of E- waste, the waste processed in the city is much more on account of the waste coming from the other centres in West Bengal as well as from outside the state.

The existing scrap dealers in the city have taken up the job of processing and recycling of E-waste and acquire waste through tenders and auctions. They are hardly aware of its toxic nature and employ women and children in various stages of processing without proper occupational safeguards.

The major hotspots for E-waste trade and recycling in and around Kolkata are Chandni Chowk, Princep Street, Maniktala, Phoolbagan, Kadapara, Rajabazar and Howrah. The disposal and recycling in the units, located in these ar-



reas, are being done in very rudimentary and hazardous processes and pose great risk to both environment and health.

The risk is high as the areas specializing in these activities are densely populated and some of the areas like Princep Street and Kadapara are in midst of residential areas.

This problem is only going to increase in the coming years and unless there are concrete measures taken urgently, this waste problem is going to take a toll on human health and environment.

*By Priti Mahesh*

## Waste saga of Kochi: Unending woes

**I**t was like a heavy blow in the dark to a city like Kochi, which has been sweating over its garbage piles for the last many months. The three containers, containing municipal waste shipped from New York to Kochi in the guise of paper waste increased the burden on the authorities.

Now it seems that for Kochi a relief from waste and the stench is just a dream. If the imported waste at the port can be considered as any indication the port city will have to face the dangers of imported waste in the future.

The imported waste landed at Kochi at a time when the city got a breather from the garbage piles for a while after dumping it at the landfill owned by Gosree project. But the authorities failed to harness the ghost of waste properly and it did a come back to the city, but this time in the guise of paper waste for recycling, interestingly from New York.

It was during a routine check at the container freight station at Pettah near Kochi the Customs officials stumbled over three containers of municipal waste. The containers were imported in the name of Kochin Kadalas, a paper manufacturing company, which imports paper waste for recycling.

Further investigations revealed that the containers have municipal solid waste including rotten food, computer peripherals and biomedical waste and were hydraulically packed.

Probably due to the wide media coverage the concerned departments including

the Customs, Port and Pollution Control Board woke up in to action. Further investigations confirmed that all the three containers are carrying the urban waste from New York. Hope the officials will offer a farewell to the containers soon.

### Waste issue in Kochi

Kerala never had thought that waste would become such an issue of concern to the state, which claims to have hundred percent literacy and perfect awareness in health care and sanitary matters. So waste remained an issue of minor concern in the state till recently when the uprisings against waste dumping took violent turns in many parts of the state. The last of such protest was in Brahmapuram near Aluva where the Kochi Corporation bought land for dumping waste.

The Corporation took the easy way out by dumping the waste at Brahmapuram without establishing a treatment plant following a High Court order to find a solution for the stinking garbage piles all over the city. The high court intervened the issue many times and it hardened its stand when the court had to observe a holiday following the stench from the piled up waste nearby as the waste removal from the city came to a standstill due to the absence of landfill sites. The civic authorities sent the waste to Brahmapuram with heavy police escort and also after many futile attempts to dump it in the interiors of neighbouring states.

The local protest turned violent and the waste returned to the city. Situations in the city further deteriorated and the health department warned of a possible epidemic outbreak. Court summoned the Chief Sec-

retary and the issue ruled the state for a month till the District Magistrate, after frantic run found out the landfill owned by Gosree. This occurred between June to September this year.

The city has a dense population with seven lakh permanent residents and 1 lakh floating population and its landfills are overflowing and further dumping is impossible. Unless and until the people become aware of the issue and adopt measure to manage waste efficiently the problem will not go away. It is time for the city people to 'waste' some time on their waste.

### Imported waste in Kochi

It is not the first time waste finds way to the country through the Kochi port. Official records with the port authorities and customs department show that imported waste comes to Kochi often. The records say that authorities have sent back 15 containers packed with waste last year only.

Official figures suggest that traders from Punjab, Gujarat, Kolkata, New Delhi and Tamil Nadu import such banned material through Kochi port. Following a seizure of 477 barrels of waste oil in April 2006 at the port the Pollution Control Board has tightened the vigil and directed the Port and Customs authorities to be alert. It has also directed to send back whatever waste, including paper and oil to the origin of port within one month of arrival. Even after this the Supreme Court monitoring Committee on Hazardous Waste found out many barrels of waste oil in a unit in Kochi. The labels on the barrels say that those were imported from United Kingdom.

Four years ago, the containers imported by another paper manufacturing company based in Kottayam had urban solid waste in it. The country's legislation prevents the import of any waste except non-halogen bulbs and that too with prior permission from the Director General of Foreign Trade (DGFT).

Even when the law is strict on the issue how and why such repeated incidents occur at Kochi port, one of the major ports in the country and an overseas trading centre in the South? Is it because of laxity on the part of enforcing agencies? . The repeated incidents underlines that the law should address the erring officials also.

By **Bindu Milton**



## “Man can exist without mercury”

LARS D. HYLANDER is associate professor with the Department of Health & Science, Uppasala University, Sweden. His study on the ‘Bioaccumulation of Hg in fish’ revealed how Mercury takes its toll on human health through fish and other aquatic species. He shares his views on Mercury and the possibility of phasing it out, in an interview with *Bindu Milton*.

### ▲ For our readers could you explain how and when you started your war on Mercury?

**Prof Hylander:** It was in 1992, the Swedish Institute wanted to recollect the first UN Conference on the environment held in Rio de Janeiro, Brazil by offering fellowships to Swedes, who wanted to perform environmental research in Brazil. I was a PhD student by then and had not enough financial support for my studies, so I realized that doing some of my researches in Brazil with such a fellowship could be a step towards my PhD degree. So I wrote a research proposal on studying effects of deforestation on soil and landscape and sent it to a friend I had met a few years earlier at a university in Brazil. He contacted one of the university professors and sent me an answer that they were only interested in a study on eventual Hg emissions from small-scale gold miners using Hg for amalgamation of gold present in the ore. So I rewrote my research plan to focus on bioaccumulation of Hg in fish.

### ▲ What is the current global scenario, which forces a debate on mercury?

Small-scale gold mining and the chlor-alkali industry are the main contributors of Hg emission in the world. Small-scale gold miners are the major consumers of excess Hg from industrialised countries, and the chlor-alkali industry is the main supplier of this excess Hg. Another important issue is dental

amalgam. Hardly anybody wants it in Sweden any longer because it is very toxic. So the amalgam producers are now increasing their marketing efforts in foreign countries such as India, where there is no regulation on using dental amalgam.

### ▲ Can we do without mercury, as the metal is being used in many industries and medical field?

Well, the hospitals should cure people, shouldn't they? If they use medicines and equipments with mercury, there is a large risk that they are poisoning people instead of curing them. The use of mercury in industries other than in the lamp industry is just because of routine. It is easier to continue with an existing process than changing technique to e.g. mercury free membrane technique using less energy than mercury cells for production of chlor and soda.

### ▲ What are the alternatives and please state whether the alternatives are affordable?

There are so many alternatives so I cannot mention them all. See: Mercury substitution priority working list - An input to global considerations on mercury management. You can download it freely at <http://norden.org/pub/miljo/miljo/sk/TN2007541.pdf>

When you are buying new products, practically all of the mercury free products have about the same price as the ones containing mercury. It is merely a matter of awareness. I remember when I came to a laboratory in Brazil, where we should analyse for mercury in fish. Hidden in a window, we found a broken mercury thermometer. So I went to the pharmacy buying alcohol thermometers, which were sold at the same price as the mercury thermometers. Certainly, the mercury thermometer they had bought earlier turned out to be very expensive when you add the cost for cleaning up the laboratory and the cost to reanalyse samples contaminated from the broken mercury thermometer.

In case you don't have money to buy mercury free equipment straight away to replace all mercury containing equipments, you could start to replace the ones broken most easily such as thermometers.

### ▲ Does mercury play havoc on health in such a large way? Any statistics for mercury induced health problems in general?

There are large losses in lifetime earnings due to reduced intelligence caused by a moderate mercury exposure when the mother has been eating mercury-contaminated fish during pregnancy. This cost is estimated at nearly USD 1 million per child in the USA.

### ▲ Why is mercury still unavoidable in our day-to-day life?

The main reason is that products with mercury never pay its full cost such as costs for lost health and damaged environment. Another reason is that consumers are often not aware of mercury free alternatives. A third is that people wrongly think that mercury equipments are the best ones.

### ▲ How can a fish consumer identify a variety contaminated by mercury?

Fish species, eating other fishes such as tuna, shark, perch, and catfishes, often have high mercury content, especially if they are caught in lakes, rivers and coastal areas getting waste water contaminated with mercury such as waste water from cities where people have amalgam fillings or the industries are using mercury e.g. for production of chlor and alkali, fluorescent lamps, thermometers etc. If you don't know from where the fish is coming, you should buy fish varieties, which eats plants, because they never have high mercury content.

### ▲ How far it is possible to bury the mercury unleashed all over the world in the mines and rock cavities?

Technically there are no limitations in burying the mercury in old mines or deep bedrock repositories. The task is rather to collect all mercury and convince the waste owners to take care about their mercury in a responsible way. ▲



## UPDATES

### COMMUNITIES AND WASTE

#### Making money out of trash

**A** small initiative towards zero waste management taken up by RWA Defence Colony and Toxics Link has been able to create a ripple effect. Its impact does not confine only in the community, but this has resulted in reducing quantity of waste taken to landfills, which is of great significance as landfills are exhausting in Delhi. Besides, it has created a support to livelihood for the waste collectors. This initiative can be taken as a model for any community willing to make a difference in society.

The initiative has brought a great significance with an active involvement of households in segregating waste and handing over in an unmixed form source. Also the waste collectors are capable of segregating on the rickshaw itself if the waste is mixed. Not only this, the community does not waste the organic waste any longer. Compost pits have been constructed within the colony for the composting of organic waste. Toxics Link provided training on

composting to the collectors and today, they are independently composting.

It is found that from 1000 households' approx. 600-700 Kg per day wet waste is being diverted from landfill through composting which amounts to more than 200 tonnes per annum of waste diversion through small community initiatives. Not only this initiative has helped managing waste efficiently in the community, but it has also helped in supporting livelihood of the waste collectors through sale of recyclables, which are recovered through source and general segregation at collection point.

Inspired by the success of the initiative, the association has resolved to extend the programme to the whole of A-Block covering 1000 households. In fact, the federation of Defence Colony has also up scaled the program to the whole colony.

While the establishment cost is one-time, there are other recurring costs, which needs to be supported throughout. These include the cost involved in purchasing EM solution and labour cost for monitoring the composting. The monthly maintenance of the rickshaw and the salary for the workers are also recurring costs, which need to be borne by the owner of the initiative, in this



*Worker at the compost pit at A-Block, Defence Colony. The Residents' Welfare Association has extended Toxics Link's waste management programme to the entire 1000-household block.*

case the A-Block RWA.

The revenue generated through the programme as given here can meet the monthly recurring cost and can reach a break-even (revenue generated covering the establishment cost) over a period of time. There are specifically three modes of revenue generation, collection fee from the residents or the user fee, the sale of compost and the recyclables. In A-block, the waste collectors takes the user fee collected from the residents in the form of monthly salary. The waste collectors also take the recyclables away for selling.

*By Mohammed Tariq*

#### Toxics Link files RTI

TOXICS LINK filed an RTI on the issue of bio medical waste in Tamilnadu in the wake of illegal dumping of such waste in the state from Kerala. Things took a different turn when the Villagers at Sokannur near Pollachi caught vehicles, which were dumping bio medical waste from Kerala in the act and handed them over to the police. The most shocking thing is water bodies, which the locals use for drinking, surrounding the waste-dumping yard. According to the locals it has been a practice in the area for quite a long time. It is mainly the bio medical waste from Kochi, a city in Kerala, waste is being transported to TN borders and dumping in private lands or some open spaces. However, the practice has been stopped for a while following local protest. But whenever the locals' attention is deviated the same thing will take place. It is in this situation TOXICS LINK filed the RTI. ▲

#### Workshop on BMW & MSW Management in Chandigarh

**F**ormulate techniques for Sharp Management, Citizen participation in monitoring central facility, sensitisation of local bodies, panchayats, Block level on BMW and MSW, ensure urban local bodies in awareness workshops to sensitize them on MSW & BMW, include awareness about e-waste management in curriculum at college and university level were the key recommendations put forward by the two day regional workshop on Bio Medical Waste (BMW) and Municipal Solid Waste (MSW) held in Chandigarh from August 21.

M.P. Singh, Secretary, Science, Technology & Environment (STE), Punjab inaugurated the workshop. Organised by Toxics Link in collaboration with Punjab State Council for Science & Technology (PSCST) at the Park View Hotel. He stated that Punjab government has negotiated with industrial forum to set up a common hazardous waste management facility

in the state. He also stressed upon adopting technologies from the advanced countries that are suitable for local needs.

Satish Sinha, Associate Director, Toxics Link, shared the need of alternate technology for incineration and stated that it was not the best technology globally and also insisted upon need for effective e-waste practices across the country. Dr. S.S. Marwaha, Executive Director, PSCST stressed to educate the common people on waste management practices and the need for enactments.

The workshop which was organised with a purpose to sensitise the issue of BMW and MSW among government officials, NGOs, local body representatives and health institutions and to plan region specific strategies for future issues related with segregation of BMW and the growing problem of MSW.

Representatives from Punjab Pollution Control Board (PPCB), Haryana Pollu-

## Draft Hazardous Materials Management Rule discussed

TOXICS LINK organised a meeting to discuss the controversial clauses and terms in the newly drafted Hazardous Materials Management, Handling and Transboundary Movement Rules on November 28, 2007. The meeting held at PHDC, Siri Institutional Area formulated a four point Action Plan to circulate awareness about the new law. The Action Plan includes campaigning through media and pressurising the government through selected parliamentarians.

The meeting, which was attended by representatives of various NGOs and environmentalists began with a brief presentation by Ravi Agarwal, Director, Toxics Link. In his presentation Mr. Agarwal spoke about the loopholes in the new draft and pointed out that the new draft violates the norms set by the Basel

Convention to which India is a signatory.

Expressing concern over the attempt to deactivate the state Pollution Control Boards in the new draft Satish Sinha, Associate Director, Toxics Link said it would escalate the trouble of monitoring.

The newly drafted rule 2007, which was open public for comments, drew a large-scale criticism from all the participants. The civil societies as well as experts working in this field felt that the present law, if it becomes legislation as it is, would unleash unprecedented havoc on India's environment.

The NGOs and environmentalists in the meeting also voiced their concern in the major change in the form of Hazardous waste rules being redefined as hazardous Materials Rule and that would open up trans-boundary movement of hazardous waste under the garb of hazardous material. ▲

## INFORMATION & COMMUNICATION

### Travelling Quotes from the Earth – 2008

As part of the travelling chapters of Quotes from the Earth Film Festival, Toxics Link is bringing a selection of environmental films from India and Europe to audiences in various Indian cities. The festival will travel to Allahabad, Hubli, Coimbatore and Ranchi between February and April 2008. The selection encompasses a gamut of environmental issues. Such films catalyse debates and make more tangible the complex environmental problems we are facing.

The films to be screened are *Point Calimere* (dir: Shekhar Dattari), *A Green Agony* (dir: Geeta Singh), *Thirsty Planet* (dir: Henning Hesse & Martin Fensch), *Mountains in the Mist* (dir: Alex Wohlgroth), *1000 Days and a Dream* (dir: P. Bauraj & C. Saratchandran), *Journey: Exploring Traditional Water Harvesting Methods* (dir: Rakesh Khatri), and *Ganashatru – An Enemy of the People* (dir: Satyajit Ray). ▲

tion Control Board (HPCB), Himachal Pradesh Environment Protection Board (HPEPB), Health and Medical Education Department Government of J & K and Chandigarh Pollution Control Committee took part in the discussions.

Satish Sinha, Associate Director of Toxics Link, spoke on the growing problem and challenges of managing the municipal solid waste at national level. Rajiv Garg, PPCB, Dr. Daksha Gupta, HPPCB, Dr. Shafqat Khan, Health and Medical Education Department Government of J & K and Dr. G.C Bansal, Municipal Corporation, Chandigarh delivered lectures on various related topics.

The workshop also covered the emerging issue of Electronic-waste management and Hazards of Household Waste. Delegates from Punjab, Haryana, Himachal Pradesh, Jammu & Kashmir and Chandigarh participated in the workshop. Dr. Neelima Jerath, Additional Director, PSCST welcomed the gathering.

By **Mohammad Tariq**



Toxics Link Associate Director Satish Sinha (seated, centre) along with PPCD officials at the Regional Workshop on bio-medical and solid waste management at Chandigarh.

## IPEN South Asia NGO Assessment Report on chemical safety

The IPEN South Asia NGO assessment survey on chemical safety held by Toxics Link has brought to light a few interesting facts regarding the NGO activities on the issue. The survey shows that the NGOs' role, strategies and priorities in raising various chemical safety issues are varied from country to country. The survey points out that during the last three years NGO activities have undergone wide changes.

Organised activities like IPEP have increased the awareness, understanding and knowledge among NGOs and other relevant stakeholders. IPEP facilitated sharing of information and dissemination of good practices. The information available at country level reveals the existing gaps in current regulations and practices. Most governments have started acknowledging the role of the civil society and are seemingly more open to their participation in the process, though the level of participation varies.



The survey, conducted with a purpose to provide strategic information to IPEN describes what is important to NGOs in the network and the current state of regional chemical safety situation in South Asia.

As many as 18 NGOs from South Asia participated in this survey representing countries which includes Nepal, Srilanka, Bangladesh, Bhutan and India. The targeted NGOs have been involving in various activities pertaining to chemical safety at local, regional and national levels.

Incidentally most of these groups have been working with Toxics Link on issues like POPs and also played a critical role in implementing the International Pops Elimination Project (IPEP) successfully.

The activities of these organisations include baseline research, dissemination of the information through various stakeholder meetings and by organising information awareness workshops and training. Other successful ways to get these issues highlighted are by publishing the reports and findings in media and few NGOs are also using Radio and Television for mass awareness campaign.

Focusing on wide range of chemical issues like pesticides, dioxin, furans, mercury and its impact on women's health, poverty and pollution, the survey attained a global relevance.

The survey gives a broader understanding on the various aspects of the chemical safety. With the rapid industrialisation, the importance of chemical safety management has been well recognized from communities to the policy makers. It has also opened up the scope for NGO involvement and allows them to play a crucial role in these issues.

But the priority must be to build adequate information and knowledge storehouses among the NGOs, disseminate pertinent information more broadly, and act proactively to formulate suitable chemical policies at the national level to reach sustainable solutions.

All the NGOs surveyed emphasised the need for capacity building and skill development. There is a unanimous view among all the NGOs to have a sustained financial requirements and capacity building to address the chemical safety issues in an effective manner.

By Piyush Mahapatra

## Training programme on E-waste recycling in full swing in Mumbai

Toxics Link in Mumbai has successfully organised two training programmes for E-waste recyclers in the city, which, according to a recent study by Toxics Link, tops in e-waste generation in the country. The city's congested by-lanes nowadays are managing the e-waste not only from Mumbai but also from neighbouring cities and states. Recycling of e-waste has already become a lucrative business in Mumbai.

It was in this background Toxics Link organised the training programme for recyclers who have been dealing with toxic substances without having any safeguards.

The training programmes were organised with a purpose to create awareness among the manual recyclers about the hazardous nature of these waste and to brief them about the precautionary measures while handling such waste.

It was very useful to the recyclers in the city as the city neither has a system to manage e-waste nor it has any programmes for awareness. Mumbai's E-waste scenario is quite unorganised. The e-waste management in Mumbai in the informal sector is unregistered and unregulated. It lacks any technical know-how and uses unscientific and unhealthy methods to recycle the hazardous waste. Neither they follow any economic, labour and environmental laws nor they pay taxes. Operational in the slums and backward areas, these recycling units lack licenses to do such activities. Closely-knit groups or family members do waste collection and recycling.

In the existing scenario it is very important to identify such clusters and make them aware of the occupational hazards involved in their work in particular and the harm it does to the environment in general.

Preparatory to the training programme we had to identify such clusters involved in e-waste recycling and get them ready to have the training programme and then make them implement it. Creating an environmental awareness and to establish a bond with the recyclers for future programmes also were in the agenda.



Thus Saki Naka and Kurla, both, poor housing areas of Mumbai were identified as the major e- waste recycling centres.

### The training programmes

We held the first training programme in Kurla where 8-10 shops are dealing with e-waste. Though the turn out was low due to heavy rain, the response was encouraging. Where as, the training in Saki Naka was marked with high attendance. About 50 persons including the e-waste traders and recyclers participated. E- waste dealers from other parts of the city like Mahim, Lamington road and Vikhroli attended.

In Saki Naka, debates were held on the health and environment aspects of e- waste recycling and also on the need to formalise the sector. They opened up that they could not afford costly equipments like filter mask and dust masks to safeguard them from the toxic elements. We advised them to use handkerchief around their nose and use exhausters at the working place to let the toxic air out.

### Outcome of the trainings

The programmes helped to build mutual trust and understanding between the recyclers and us. A close network has been established since then with the recyclers. The major outcome of the training programme is that the uneducated recyclers understood what we said and expressed readiness to follow our suggestions provided it is cost effective. They were ready to make changes and improvements in the present processes for the sake of environment and willing to shift the polluting e- waste recycling to non-residential parts of the city.

By **Kishore Wankhade**

## Training for PCB officials on E-waste management

**W**ith an aim to share knowledge with Tamilnadu Pollution Control Board (TNPCB) on E- waste management TERI-Toxics Link collaborative organised a one-day workshop at Chennai on 13<sup>th</sup> August 2007.

The workshop was inaugurated by the Member Secretary Dr T Sekar, IFS and chaired by Dr. Sundara Devan IAS, Chairman, TNPCB. The speakers of the workshop gave a vivid picture of the current scenario and the session was interactive through out.

Ms Rajeshwari, Fellow of TERI spoke on the 'Status and Implementation of E-waste Management in Indian cities'. Toxics Link Programme Coordinator Mr Arun Senthil Ram, briefed the delegates on 'Environmental Impact of Informal Recycling in Chennai'. TNPCB Assistant engineer



Ms Josaphine Sahayamary shared the 'E-waste Management – Status and Initiatives in Chennai'.

A workshop of such nature has proved to be very vital for the issue, as it has brought out the gap that still exists. Toxics link used this platform to showcase the practices which are happening in the informal sector and that it is in the process of training the informal sector to shift to safer practices.

It was also stated that the TL Chennai node was in the process of identifying the informal recyclers of the city who are also willing to undergo training. Currently there is a list of 44 informal recyclers, which Toxics Link Chennai has identified and is in the process of identifying few more in various zones.

A strategic move to quantify the amount of e-waste entering into the country through Chennai port was cited in the meeting and Toxics Link shouldered the move to take forward by filing an Right To Information Act (RTI) with the commission of customs which was positively acknowledged by the Assistant Commissioner Docks.

Mr Atulya Misra IAS, Member Secretary Youth and Sports Affairs, GoTN felicitated the participants. The participants included the Chief Environment Engineers, Joint Chief Environment Engineers, Deputy Director-Labs, District Environment engineers, Assistant Engineers, Academicians, CSR Executives from Wipro, Infosys besides, the Recyclers.

By **Arun Senthil Ram**

### Bali conference adopts plan for climate change pact

**THE UN CONFERENCE** on climate change and global warming held in Bali from December 3 to 14 came out with a few positive measures on the issue, which the scientists say will lead to wide spread drought, floods and storms across the world. The world leaders attended the conference representing 190 countries came out with the concept of a new pact by 2009 to fight global warming in an effective way. The document adopted was limited to setting an agenda for negotiations to find ways to reduce pollution and help poor countries adapt to environmental changes by speeding up the transfer of technology and financial assistance. One of the major outcomes of the conference is that China and India, two booming economies of the world were part of the discussion on global warming. ▲



## Reward offered for information on poaching in Gir

In a bid to enlist the cooperation of the local population in saving the endangered Asiatic lion, the Gujarat government has initiated a reward scheme for information on poachers and poaching activities in the Gir Wildlife Sanctuary in Saurashtra's Junagadh district.

According to an official spokesperson of the Gujarat state government, a corpus fund has been created with an initial allocation of Rs 500,000 per annum to reward local people for their cooperation with the government machinery in the fight against illegal poachers.



Under the scheme, Rs 300,000 will be paid from the fund to the next of kin of anyone killed while trying to catch a poacher or save a lion from being captured. The same amount will be paid to the kin of an informant killed by a poacher.

People who are injured while attempting to save a lion from being captured or killed will receive a reward of upwards of Rs 50,000 depending on the extent of the injury (to be determined by a civil surgeon). The injured person will also receive free treatment at the nearest government hospital, and the person looking after him a daily allowance of Rs 60.

Source: The Hindu

## Sethusamudram will endanger Olive Ridley turtles: experts

BESIDES INTERFERING

with the migration and nesting

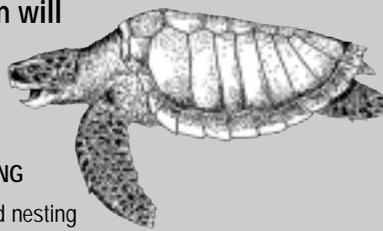
habits of the famous Olive Ridley turtle, the proposed canal will have a significant impact on some of the most important marine biodiversity areas of mainland India, say environmentalists.

The proposed Sethusamudram shipping canal off the coast of Tamil Nadu, at India's southernmost tip, will force thousands of endangered Olive Ridley sea turtles that arrive in Orissa every winter to nest to change their migratory path, putting their lives at risk, warn environmentalists. The project will also irrevocably alter precious marine ecosystems in the Gulf of Mannar and the Palk Strait.

Turtle lovers and marine scientists are opposing the project — that will carve out a navigable channel in the Palk Strait, a narrow stretch of sea that separates India and Sri Lanka, so that the time taken by ships to sail between India's east and west coasts is cut considerably — fearing it will change the migratory path of the turtles towards the Orissa coast.

"The project will hamper the annual migration of Olive Ridley turtles towards Gahirmatha and other beaches in Orissa," noted environmentalist Arati Sridhar said. Gahirmatha, in Orissa's Kendrapada district, is the world's largest nesting site for sea turtles. "The movement of the turtles will be affected by the passage of ships and other big vessels in the Palk Strait."

Source: Indo-Asian News Service



## Kerala bans thin plastic bags

The state of Kerala has issued a complete ban on thin plastic bags — below 30 microns - that are considered an environmental hazard besides being a threat to animals who inadvertently swallow them. The ban that came into effect on September 1, 2007 also covers disposable plastic cups and containers used in the food industry.

"Shop owners will be punished if they stock plastic bags

and other plastic materials that harm the environment. They will be required to offer bags made out of paper or other biodegradable matter," Panchayati Raj Minister Paoli Mohammed Kutty said.

Those who violate the ban will first be let off with a nominal fine. A subsequent offence will incur a fine of Rs 5,000, which could go up to Rs 25,000 in the case of multiple offences. The shop licenses of repeat offenders could also be cancelled.

The government has set up special squads to carry out regu-

## Orissa's mines, Vapi, among world's 10 most polluted areas

A report on the world's most polluted areas, by the Blacksmith Institute, says that pollution in two of India's biggest money-spinning sites poses a serious health hazard to thousands of people living and working in these areas.

Opencast chrome mines in Orissa's Sukinda valley and the chemical hub of Vapi in Gujarat are among the world's 10 most polluted places, according to a new report by the Blacksmith Institute, a US-based independent environmental watchdog.

The Sukinda valley, spread over Orissa's Dhenkanal and Jajpur districts, and the site of India's largest chrome ore deposits, ranks fourth in the 'Blacksmith Institute Pollution Report for 2007' released on September 12. The 400 km industrial belt of Vapi — one of India's largest — in south Gujarat's Valsad district is fifth on this year's list. Home to 97% of India's chrome reserves, Sukinda, the largest chromite ore mines in the world, are a major environmental hazard.

Source: Hindustan Times

lar inspections of shops and other outlets that give customers plastic shopping bags and food containers, in order to ensure that the ban is not flouted. The inspectors have been directed to issue notices to those traders who stock or distribute the banned items. A week after notices are served, their goods will be seized and the traders will be prosecuted, warned the government. "Various departments have been directed to enforce the ban," Kutty said.

Source: Hindustan Times

**RESOURCES**

**PUBLICATIONS**

**ENVIRONMENTAL JUSTICE AND ENVIRONMENTALISM**

**Published by:** The MIT Press

**Publishing Date:** February 2007



The book is a collection of ten essays contributed by experts from variety of disciplines. Edited by Ronald Sandler the book examines the relevance

of two environmental movements that are environmentalism and environmental justice. The authors closely examine the current relationship between the two movements in both conceptual and practical terms and explore possibilities for future collaboration.

Although the environmental movement and the environmental justice movement would seem to be natural allies, their relationship over the years has often been characterised by conflict and division. The authors examine the possibility and desirability of one unified movement as opposed to two complementary ones by means of analyses and case studies.

This book, part of a necessary rethinking of the relationship between the two movements, shows that effective, mutually beneficial alliances can advance the missions of both. ▲

**NOXIOUS NEW YORK**

**Published by:** The MIT Press

**Publishing date:** December 2006

'Noxious New York' by Julie Sze talks about the environmental justice, which is being denied to the urban poor in a broad way. She uncovers two of the most ominous forces shaping all our lives today - and particularly the lives of the disenfranchised: the scourges

**Centre For Services in Rural Area (CSRA)**

**C**enter for Services in Rural Area (CSRA) was set up as a non-profit and non-government voluntary organization in 2000-2001 with the aim to mobilize the public opinion and generate resources for development action for the people. At present CSRA is being operated from Surul village of Birbhum district of West Bengal. The vision of CSRA is to take forward the marginalized rural people who are self governed with ever widening thoughts and action. And the mission of the CSRA is primarily dedicated to integrate rural development activities among the downtrodden and underprivileged rural peoples to restore their livelihood condition in a sustainable manner.

As a forefront organization in that area, CSRA has been able to work on community sensitization program on Child Rights, Women Empowerment, Youth Club Development and safe drinking water. Other programmes undertaken by these groups include research project on "women empowerment through self help group in Bolpur. It also played critical role in implementing the projects like integration of Urban Informal Sector in public policy process in three sub divisional areas of Birbhum district.

The CSRA is one of a grantee un-

der the EEJP, an initiative taken by the Just Environment Charitable Trust, to work on Multi-Stakeholder Initiative. For Ensuring Tribal Governance On Forest. The project is being aimed to take an attempt to prevent and control of deforestation as well as ensure sustainable use of forest resources through full participation of local tribal communities and other stakeholders in decision-making over management of natural resources in the operational area and it is required to reverse the current rates of forest loss. Also, forests are more than just stands of timber and provide valuable services. These lessons seem to be absent in our existing national forest policy (1988) deliberations that affect forests, and therefore the project intends to include all responsible actors in the future in the policy. And the location of the project will in and around of 20 Villages of Choupahari Forest Area' in Illambazar CD Block of Birbhum District, West Bengal. And the duration of the project is 12 months.

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of privatization and deregulation.

The book argues that only environmental activists can take the earth back from the clutches of corporate powers, which dominate the society from top to bottom.

The author analyses the culture, history and politics of environmental justice activism in New York with a global perspective.

The book takes stock of the urban poor and racial minorities, who are the most exposed to environmental problems. Sze describes the emergence of local campaigns organized around issues of asthma, garbage,

and energy systems, and how, in each neighborhood, activists framed their arguments in the vocabulary of environmental justice. She illuminates the complex mix of local and global issues that fuels environmental justice activism. ▲



If you have published a book or know of one that should be featured here, send us the details at [info@toxicslink.org](mailto:info@toxicslink.org)

## FILMS

### MERCURY: NO SILVER LINING

**Duration:** 13 minutes

**Language:** English, Hindi

**Produced by:** Toxics Link

Mercury has become a major concern among healthcare professionals, with hospitals and other institutions taking great care to reduce the amount of mercury in the workplace to minimise chances of exposure.

Exposure to mercury can lead to a number of serious health problems, like damage to the nervous system, kidneys, liver, and cause motor skill and memory impairment.

Pregnant women and those who are in childbearing age are particularly at risk as mercury can cause birth defects and health issues in young children.

The short film has been produced with an intention to give a clear idea about Mercury and its hazards. It highlights a few environmental disasters and human death due to Mercury exposure. The film also takes a

closer look at the institutions making the shift to safer alternatives besides, warns the government of the need of a policy change.

### MERCURY SPILL MANAGEMENT

**Duration:** 1 minute

**Language:** English and Hindi

**Produced by:** Toxics Link



Mercury is a neuro and nephro toxic metal, it may also cause harmful effects on the digestive and respiratory systems. It may cause allergic skin reaction, is a reproductive hazard and may cause behavioral effects.

The debate on Mercury and its ousting from day today life is increasingly getting momentum at international level. Alternatives for various Mercury equipments and mercury based industries have already been experimented and gradually replacing the toxic metal.

The 1 minute long animation film by Toxics Link demonstrates what one should do in case of a Mercury spill. It briefs the step-by-step measures to clean the surface without putting the concerned person in hazard.

*For more information on any resource mentioned here, contact [info@toxicslink.org](mailto:info@toxicslink.org)*

## Free subscriptions to *Toxics Dispatch*

If you find information in *Toxics Dispatch* useful and would like two of your friends to receive a free subscription for a year, just send their details to Praveen Sharma, Toxics Link, H-2, Jungpura Extension, Ground Floor, New Delhi 110 014.

Make sure you include the following details: their name, address, age, occupation, e-mail and phone number.

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*Toxics Link is an initiative of the  
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