

T O X I C S

DISPATCH



Toxics Link
for a toxics-free world

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Hubli-Dharwad Sustainable Healthcare Waste Management Project: A success story from South India

Hubli-Dharwad healthcare waste management project is a milestone in the over a decade long activities of TL in waste management. The two year long project, the first one to be implemented with the support of municipal authorities in South India is intended to make a healthy change in the biomedical waste management practices in the twin city area. The attitude survey conducted prior to the project highlights the poor awareness on bio medical waste among the healthcare staff. This issue of TD looks in to the highlights of the survey and the details of the project....

Hubli- Dharwarad project- Major initiative in Healthcare waste management

In a major step towards the sustainable healthcare waste management Toxics Link has launched one of its major projects in bio medical waste management in Hubli, Karnataka in October 2007. The Hubli-

Dharwad Sustainable Healthcare Waste Management Project is being implemented in collaboration with Health Care Without Harm (HCWH) and supported by Deshpande Foundation.

With an aim to help the hospitals and clinics of the district improve their practices in health care management. The project

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Regulation is essential for e waste

The new electronic waste guidelines have been cautiously issued by the Government of India recently. It has taken 5 years to do so. However it is only a guideline and has little or no legal standing. Hence while the guidelines do mention issues of Extended Producer Responsibility and removal of toxics from electronic devices, the question is how will these be implemented?

However laws and guidelines are nothing, solving the problem is everything. With a booming computer density projected to be 65 per 1000 population by 2010, and 600 million mobile phones by 2011, India is set to be a e waste hub. Our previous estimates of 50,000 mt of annual illegal imports of e waste also seem too low from our new investigations. Simultaneously Europe and even China have stringent requirements for toxics in electronics and how these are to be recycled and collected. With no rules set up here, and the belief that the 'market' will find a way, is no doubt going to lead to a mess in the near future.

Currently every major or minor metal recycler in the world is eyeing setting up facilities in India. Some already have. However, once they are here, they will all try and suck up e waste from wherever they can to ensure their capacity is utilized. Hence imports, and collection from bulk disposals will be the main target. But who will collect from the consumer? And what happens to the poor waste collector in the bargain? Well except for the legendary 'trickle down effect' logic, there is no coherent answer to this being provided. Alongside with no requirement to market toxics free products in India, will we be dumped with the 'low end' and toxics products line up while the cleaner ones head for Europe?

It seems the new push is to facilitate investment in recycling, rather than protecting the environment, the consumer and the worker. Of course in some places these objectives may meet and cross, but these are not the same. A policy towards the latter will imply ensuring collection of e waste from all quarters, its proper dismantling and its safe recycling, while the latter only encourages investments in recycling units without ensuring the rest. It is for these reasons why we need a law and not just guidelines. Let the market play, but ensure the environment and the citizen is protected. Regulation is not anti-market. It is about solving the problem.

Ravi Agarwal

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will train medical staff, waste workers, hospital managers and government officials in best practice for medical waste handling through practical demonstrations and lecture courses specifically tailored for the different tasks each profession needs to understand. To ensure the greatest benefit to the community, the project will prioritise the public healthcare service run by the Hubli-Dharwad Municipal Corporation, but if possible will also reach out to interested members of private institutions.

The authorities as well as the public till recently despite a strong legislation have neglected the issue of medical waste in this regard. The biomedical waste is more hazardous than municipal solid waste as it is infectious and can spread disease such as hepatitis and HIV. Most of the waste produced by medical centres is harmless if it is segregated and handled properly, and much of it can be recycled at a profit.

Hubli-Dharwad- The attitude survey

For setting the ground ready for the project an attitude survey was conducted which covered 176 hospitals in Hubli-Dharwad including 72 facilities that only deal with outpatients and out of which 10 are run by HDMC and these, along with 5 private hospitals, 1 civil hospital and KIMS medical college. Half the respondents were nurses and half doctors.

Health Care Without Harm (HCWH) is a global coalition of over 450 organisations in over 50 Countries who are working to transform the global healthcare industry so that it is no longer a source of harm to patients, carers, the community or the environment. HCWH has over ten years experience in working on medical waste issue as well as helping to substitute mercury, PVC and other toxic substances, and is initiating a green buildings programme.

Toxics Link. The main partner of HCWH's in India is dedicated to bringing awareness and solutions to toxics-related issues both at the grass-root level and in national and international fora. Shristi-Toxics Link pioneered the issue of bio-medical waste in India in 1995 and has been involved both in setting national policy and in developing and implementing highly successful medical waste training programmes.

The Deshpande Foundation was founded in 1995 and supports philanthropy, civic participation and social entrepreneurship in India and the USA. The main projects in India are the Deshpande Foundation Sandbox, which is an effort to support innovative NGOs with scalable solutions in northwest Karnataka, the Akshaya Patra Foundation, which provides meals to underprivileged school children across fourteen locations in India.

The attitude survey gave positive results. Around 70% of the respondents felt that the waste management is an important activity and it is not the sole responsibility of the government. Fewer than half thought it would represent a financial burden- and all agreed that it is teamwork.

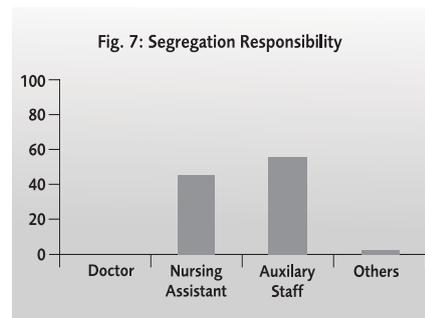
The results also gave an overview of knowledge, awareness and practices in biomedical waste management in the twin city area. This will form part of the baseline against which the project will measure improvements; and highlights any potential problem areas that warrant special attention.

Among those surveyed majority identified that proper management of bio-medical waste is the responsibility of the head of the hospital and nursing staff. However, none seemed aware of the responsibilities of doctors in this regard. But doctors can play a vital role in ensuring proper waste management in the areas of their control though they are not involving in the process directly.

The survey also highlighted the lack of training among hospital staff including doctors on bio-medical waste management. Despite the fact that only 35% of the health care staff has training, all expressed willingness to be getting trained in bio medical waste management. The most pathetic part is only around one fifth of those interviewed knew of the existence of a waste management committee or a waste register at their facility.

Poor awareness and poorly managed dustbins

A visual survey of the waste bins in the wards indicated that segregation was mostly carried out poorly and that bins were often overfilled. It is very clear that majority of the healthcare facilities do not segregate at source. Another common problem at the



ward level was the absence of needle cutters and disinfection solution.

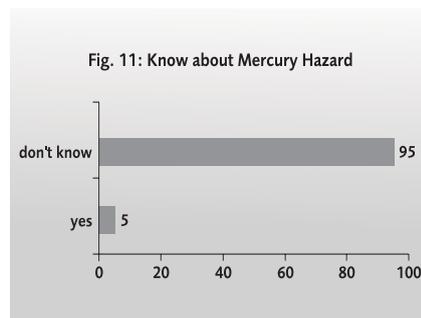
Worryingly, only 5% knew of the hazards of mercury despite the fact that there will be frequent spills from broken thermometers and also from blood pressure instruments. Unless any mercury spills are handled properly, patients and staff can be exposed to this highly toxic metal, or it may come to pollute the environment.

Awareness of the national legislation was also very poor; only 25% of the interviewees knew of any legislation and only 10% could name the Biomedical Waste (Management and Handling) Rules. 75% of the interviewees were ignorant of the need for authorization under the Act, 22.5% knew that their facility was authorized and 2.5% admitted that it was. **Of the total respondents only 25 percent are aware of existence of any legislation for biomedical waste management in India and only 10 percent of the health care staff knew the name of the rule.**

When asked about the knowledge of authorization required by the health care facility from the state pollution control board, the majority (75 percent) of the respondents have no knowledge of such authorization.

Waste collection lacks basic facilities

Waste collection in these hospitals is taking place in unhealthy manner that those who collect waste are doing it without any protective gear or proper trolleys and no fixed time for the work. The law states that biomedical waste should be stored not more than 48 hours and that it should be sent for treatment to the central waste treatment facility. But only 18% of the surveyed admitted that it was collected less regularly than this and nearly 20% were not sending the waste to the central facility.



There is however, a good general level of knowledge of the importance of medical waste handling, as well as how it could be carried out at the ward level- and an overwhelming interest in training and improving the situation.

The training, to be held as part of the project will definitely change the situation but to achieve and sustain best possible practice will require follow-up training and more profound changes in the way the whole issue is addressed in many quarters. This project is bringing together all the stakeholders on the issue to share expertise, build capacity and deliver systemic improvements.

Waste disposal

The survey brought out the fact that many of the hospitals fail in regular disposal of medical waste and a few dispose the waste on weekly basis. But majority hospitals use the centralised facility to treat the waste.

A vast majority of the health care staff knows colour coding scheme used for biomedical waste in the hospitals. But not all hospitals are using full colour coding as per the BMW rules. It was found that from surveyed facilities 50 percent are having blue container/bags in use, 7.5 percent using white colour code, 45 percent are using yellow colour code and 37.5 percent were using black colour code.

This clearly indicates the lack of proper practice of colour code scheme in the surveyed facilities. Only 25% of respondents know about the biohazard symbol, which is mandatory to be used as label under health care waste management.

Only 18% of respondents were aware of a waste register in their facility. **Few respondents (about 30%) thought that waste was not an important thing and that it was the responsibility of the government.** The same number disagreed that it is extra work. Only 40% believed that it is an extra financial burden and all agreed it is teamwork.

It is shocking to find out that 87% of the surveyed healthcare staff is not aware of any training on biomedical waste and very few know about training facilities. Optimistically all expressed their desire to attend such trainings and which is a positive indication.

by Prashant Pastore

FEATURES

Painting toxics

During the festival season between Dusshera and Christmas Indian homes receive a fresh coat of paint. Use of paints on walls, wooden doors, iron grills is almost universal, only limiting factor being the family income as paints are costlier than the hydrated lime used traditionally to coat Indian homes. However paint may be bright or dull most of the paints of popular brands sold in Indian markets contain lead (Pb), a toxic heavy metal, in high concentration. In a recent study done by Toxics Link, it was found that 84 percent of enamel paint samples had more than 1000 parts per million (ppm or 0.1 percent) of lead. 0.1 percent of lead (Pb) in paints is a voluntary limit set by Bureau of Indian Standards (BIS). The study, named "Brush With Toxics: An Investigation on Lead in Household Paints in India" (please visit www.toxicslink.org for full report), also found that lead (Pb) concentration in all plastic paints were below 25 ppm, well below the limits of BIS.

The other significant findings of this study were: 1) lead (Pb) concentrations in paint seemed to be dependent upon colour of the paints and followed the following order: White < Black < Blue < Red < Green < Orange < Yellow. 2) Enamel paint samples of only one brand followed the voluntary guidelines of BIS related to lead (Pb) concentration in paints. Cans and containers of this particular brand mention, "no added lead, mercury, chromium compounds" around a mark of green tree. This claim seems to be true at least in terms of lead concentration. In this study 69 paint samples, which included 38 plastic paint and 31 enamel paint, of all leading brands were analysed for total lead concentration. Majority of samples were purchased in Delhi with a few from Mumbai as well. All these paint samples were intended for household coatings. Lead analysis was carried out in Galson Laboratories in New York, USA.

This study assumes significance given the toxicity of lead and its potentially dangerous portent for children's health. It's

relevant to recall that one of the problems that toy giant, Mattel's products suffered was the high content of lead in the paints coated on toys that forced Mattel to withdraw its products from world markets worth millions of rupees. It is appropriate to mention here that lead toxicity associated with toys, which are integral part of children's development process, result primarily from paints or the PVC material used to make toys (see Kumar, A and Pastore, P., 2007. Lead and cadmium in soft plastic toys. *Current Science*, Vol. 93, No 6, pp 818-822). Therefore, it becomes imperative to comprehend the entire gamut of issues thrown by this study.

What is Paint

Paint is a cocktail of various metals and their pigments and compounds used as vehicles, pigments or additives. The liquid portion of paint (constituting 50-75 percent of paint) is also known as the 'vehicle', which is essentially composed of volatile organic compounds (VOCs). 'Pigments' are the solid portion of the paint, which is used to impart colour, durability and consistency to paints. 'Additives' act as corrosion inhibitors, fungicides, preservatives, wetting agents, water resistance, gloss, etc. 'Binders' are generally oils, resins and plasticisers, which tend to hold pigments together.

Use of lead in paint is 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. However, there are readily available substitutes for all lead compounds such as titanium dioxides etc. Cost does not seem to be the major factor in shifting to lead-free alternatives as pointed by the above-mentioned study, which found at least one brand with the same price range having eliminated the use of lead pigment and other additives.

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 of



homes and buildings and include other coatings such as emulsions, enamels, varnishes, wood finishes and distempers. Industrial paints find their use in automobile coatings, steel structures, marine coatings and for other high performance purposes. In India market shares of decorative and industrial paints within the paint industry are 70:30 while in the developed countries it is 50:50. On the basis of solvents used paints can also be classified as water-based and oil-based. Plastic paints are water-based while enamel paints are oil-based.

Lead (Pb) and its health impacts

Lead (Pb) is categorized as heavy metal belonging to group IV A (14) of the periodic table having atomic number 82 and relative atomic mass 207.2. Pure lead is a silvery-white metal and is soft (enough to be scratched by fingernail), dense (11.3 g/cm³), malleable and readily fusible. Alloying it with small amounts of arsenic, copper, antimony or other metals hardens lead. Metallic lead occurs rarely in nature. Lead is usually obtained from sulphide ores, often in combination with other elements such as zinc, copper and silver. Its abundance in Earth's crust is about 0.0013 percent.

That lead is a known neuro-toxin has been well established by various studies. WHO considers lead concentration lower than 10 µg/dl in children's blood as safe. However, it must be known that no level of lead in blood is safe as new body of literature points that even low exposure of lead for a longer time can cause several health problems. It must be noted here that what constituted 'safe' yesterday is no longer 'safe' today and what is 'safe' today may not be 'safe' tomorrow. The present 'safe' limit of blood-lead concentration in children was actually 60 µg/dl in 60s and then it was brought down to 30 µg/dl in 70s, which was again revised in 1985 to make it 25 µg/dl only to be revised again in 1991 as 10 µg/dl as the safe limit. Another problem of lead exposure is it being cumulative in nature. After lead is absorbed into blood, some of it is filtered out and excreted, but the rest is distributed in the liver, brain, kidneys and bones. What's more disturbing is what happens when lead gets into the bones. Bone stores lead and stay there for decades. It can re-enter the body when bone breaks down as part of a regular metabolic process

or due to some specific physiological conditions like osteoporosis, causing re-exposure.

Children and pregnant women are particularly susceptible to lead poisoning. Children's digestive systems absorb up to 50% of the lead they ingest. The high retention occurs from birth to the age of 6 years, when the brain is developing. Lead interferes with its development. By the time physical symptoms are evident - headache, lethargy or hyperactivity, nausea, stomach aches, vomiting, and constipation - significant brain damage has probably already occurred. Abdominal pain, vomiting and constipation helps greatly to differentiate lead from infectious disease that cause similar symptoms and are common, but result only in diarrhoea. Progressive elevation of blood lead levels in a child's system can cause a potential genius to drop to an average achievement level and an average child to become learning disabled. The fetuses of pregnant women are severely affected by lead exposure since lead can pass through the placenta directly into the baby. When an expectant mother maintains a poor diet, the problem is compounded since she will start breaking down bone to release calcium and other minerals, thereby releasing lead stored in the bones, which passes to the developing baby. High lead exposure could also result in fetal death. The World Health Organization estimates that 15-18 million children in developing countries are suffering from permanent brain damage owing to lead poisoning. Hundreds of millions of children and pregnant women in all the developing countries are believed to be exposed to elevated levels of lead.

In fact it was this concern of lead exposure that compelled governments around the world to phase out lead from the gasoline. India also finally phased out lead from gasoline in the year 2000. There are now only two countries in world, which continue to use lead in gasoline; and aviation is the only sector where lead is still used in gasoline worldwide. Lead is used in gasoline as anti-knocking agent in order to increase the octane number.

Lead in paints and exposure pathways

Although children are known to eat paint chips, more commonly lead paints in

and around homes contribute to dust and soil contamination that is often the most significant source of exposure for children. Children then ingest lead from playing close to the ground and having frequent hand-to-mouth contact. Significant exposure may also occur from lead paint when smaller particles become airborne during sanding and scrapping while repainting and remodeling. In addition, damaged paint and the weathering of paints on the exterior of buildings also contribute to lead in soil. Contaminated soil is a particularly significant source of exposure to children. Ingestion of contaminated soil, dust and lead based paint chips and toys due to hand-to-mouth activity form important sources of lead exposure in infants and young children.

Regulations for Lead in Paints

For over 50 years now dangers represented by lead paint manufacturing and application led to many countries' enacting bans or restrictions on the use of white lead for interior paint: France, Belgium, and Austria in 1909; Tunisia and Greece in 1922; Czechoslovakia in 1924; Great Britain, Sweden and Belgium in 1926, Poland in 1927; Spain and Yugoslavia in 1931; and Cuba in 1934. In 1922 the third International Labour Conference of the League of Nations recommended the banning of white lead for interior use.

With respect to the existing US standard for lead in new paints, the Consumer Product Safety Commission (CPSC) of US states, "*that paint and similar surface-coating materials for consumer use that contain lead or lead compounds and in which the lead content (calculated as lead metal) is in excess of 0.06 percent of the weight of the total nonvolatile content of the paint or the weight of the dried paint film (which paint and similar surface-coating materials are referred to hereafter as "lead-containing paint") are banned hazardous products under sections 8 and 9 of the Consumer Product Safety Act (CPSA), 15 U.S.C. 2057, 2058. (See parts 1145.1 and 1145.2 for the Commission's finding under section 30(d) of the Consumer Product Safety Act (CPSA) that it is in the public interest to regulate lead containing paint and certain consumer products bearing such paint under the CPSA.)*"

In 1997, Australia recommended 0.1 percent of total lead as the maximum amount of lead in domestic paint. Singapore also has a standard of 0.06 percent of lead in new paints. China has perhaps the most stringent standard for lead in paints, which is 90 ppm.

The existing Indian standard (which is voluntary) for maximum content of lead in paint is governed by IS 15489: 2004, superseding IS 5411 (Part 1): 1974 and IS 5411 (Part 2): 1972 (Bureau of Indian Standards, 2004). Under additional optional requirements for ECO-Mark, which was introduced by Ministry of Environment and Forests (MoEF) and is administered by the Bureau of Indian Standards (BIS) under the *BIS Act*, 1986 as per the Resolution No. 71 dated 20th February, 1991 published in Gazette of Government of India, the para 6.12.2.2 of IS 15489: 2004 states, "*The product shall not contain more than 0.1 percent by mass (as metal), of any toxic metals such as lead, cadmium, chromium (VI) and their compounds when tested by the relevant Atomic Absorption Spectrophotometric methods*". For a product to be eligible for ECO-Mark it shall carry standard mark of BIS for quality besides meeting additional optional environmental friendly (EF) requirements of Eco-Mark. Therefore, these voluntary standards, in effect, mean that no manufacturer is bound by any law to subscribe to these standards. Even if one wishes to follow IS 15489: 2004, one is not required to limit the lead concentration in paint products below 0.1 percent (1000 ppm) as the requirement for lead to be below 0.1 percent comes under an optional scheme of ECO-Mark. So a paint product labeled ISI (thereby confirming to the BIS voluntary standards) may not contain lead below 1000 ppm unless it also has ECO-Mark.

Conclusion

This study clearly demonstrates that lead-based additives are still used in paints in India. While the developed world moved long ago to remove lead from paints India continues to use it. Shift to lead-free alternatives is not even a technology issue. It's a matter of will that the Indian paint industry has to show as the present study

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Proposed hazardous waste management rule: A Real hazard to the environment

Hazardous Changes to the Hazardous waste Rules

Industrial policies since independence fostered the growth of industries in India. The rapid industrialisation has been key to the economic growth. But one of the downsides of industrialization has been the generation of large quantity of hazardous wastes. Hazardous waste is a term applied to those wastes that because of their chemical reactivity, toxicity, explosiveness, corrosiveness, radioactivity or other characteristics, constitutes a risk to human health or the environment. Such wastes maybe generated as a by-product in the manufacturing processes or maybe generated from the use of various catalysts, which need to be disposed off when the industrial process is complete.

Existing Regulation

To address this critical problem, The Hazardous Wastes (Management and Handling) Rules were issued in the year 1989 under the umbrella of Environment Protection Act (EPA). These rules classified hazardous wastes into 18 categories in its Schedule-1 based on constituents present. The Government of India amended the Rules in the year 2000 and further in the year 2003. These amended Rules brought



in following basic modifications with respect to definition of wastes:

Identified the types of hazardous wastes likely to be generated from different industrial processes. Such wastes are deemed as 'hazardous' irrespective of constituents / concentrations.

Identified concentrations or constituents of wastes, which are to be classified 'hazardous' only if they exceed the threshold concentration limits mentioned in the Rules.

Categories of wastes banned for export and import had also been defined in these amendments, fulfilling the Basel Convention, ratified by India in 1992. The basic objectives of the Basel Convention are for the control and reduction of transboundary movements of hazardous and other wastes subject to the Convention, prevention and minimization of their generation, environmentally sound management of such wastes and for active promotion of the transfer and use of cleaner technologies.

Current Scenario

The hazardous waste generated in the country per annum currently is estimated to be around 8 million tonnes out of which 70% is being generated by five states, namely Gujarat, Maharashtra, Tamil Nadu, Karnataka and Andhra Pradesh. Only three States have developed common TSDF (Treatment, Storage, Disposal Facility), which are essential component of proper hazardous waste management activity for ultimate disposal of the hazardous wastes in an environmentally sound manner. These 10 facilities are currently operational only in Gujarat, Andhra Pradesh and Maharashtra. (Source: Central Pollution Control Board).

Ground Reality

Though the Hazardous Wastes (Management & Handling) Rules were notified in 1989, the implementation on the ground has left a lot to be desired. Lack of proper infrastructure and strict enforcement mechanism has led to hazardous waste still remaining a grave problem. New emerging wastes and loopholes in the current legislation have also contributed to this. There are still problems of hazardous waste not being managed in sound environmental conditions, improper dumping and lack of proper treatment and disposal facilities. There are also reports of illegal import of hazardous material in the country.

Moving Ahead?

Ministry of Environment and Forest has recently further amended and issued the draft Hazardous Waste Rules, which is now termed as 'Hazardous Materials (Management, Handling and Transboundary Movement) Rules, 2007'. (The new Draft was notified on 28/9/2007 by Ministry of Environment and Forest, Government of India and was available on the their website. The draft was open to comments for three months.)

The new draft claims to address sustainable development concerns and also enable the recovery and/or reuse of useful materials from hazardous materials generated from a process, thereby, reducing the hazardous wastes destined for final disposal and to ensure the environmentally sound management of all hazardous materials.

This new revision is a major departure from the earlier amendments, as it talks about 'Hazardous Materials' instead of 'Hazardous Waste'. It categorizes recyc-la-

ble hazardous waste as non-waste, instead of giving it a term "Hazardous Material". This change is bound to create uncertainty among the generators regarding whether they are handling hazardous waste or hazardous materials and leaves scope for different interpretation. In fact this will take out most hazardous waste out of 'waste' category and will eventually lead to improper handling causing environmental degradation. This ill-defined categorisation will also put all the raw materials with the mentioned characteristics (like flammability, corrosiveness etc) under this Rule. This can snowball into a major monitoring and implementation drawback. The Rule also has overlapped with the existing Manufacture, Storage and Import of Hazardous Chemical Rules, 1989. Moreover, it is an unnecessary change as terming recyclables as waste is not in anyway anti recycling.

This move is also in complete violation of the Basel Convention. The new categorization will open the floodgates for import of recyclable hazardous waste to India, making it a global waste destination. In times when India is finding it difficult to manage its own waste, this shift is certainly not warranted.

The revision also does not take into account the observation made in the Supreme Court judgments on the issue, which clearly stresses on the need to have better implementation of the existing Rule.

The Draft Rule also reduces the control over the generators and handlers of hazardous waste. It removes the stipulation, which required them to seek authorisation from State Pollution Control Boards. This is bound to worsen the situation, as it will be impossible for the Central Bodies to monitor the units, leading to no control situation.

Some of the other major drawbacks in this new draft rules are:

- The Draft Rule describes certain characteristics by which the waste can be termed hazardous. Characteristics like leachability have not been included
- The definition of Disposal covers only land disposal- missing out on disposal in other mediums
- The Rule does not mandate permission from Transit countries in case of export-import- this is in complete violation of the Basel Convention
- It does not propose streamlined collection mechanism for hazardous waste- specially new wastes like E-Waste
- The rule also does not address the inadequacy of disposal sites
- Occupational health safety measures in the units handling hazardous waste have also not been dealt with.
- No incentive or move to phase out toxic products in the production stage

These new modifications are bound to worsen the situation, which currently needs a strict and effective monitoring and implementation strategy. The problem, at present, is that the enforcement mechanism lacks teeth and has failed in curbing the improper handling of Hazardous waste.

The need of the hour is to have stringent implementation of the Existing Rules, which will lead to proper collection mechanism, sound recycling technologies, adequate and scientifically designed disposal sites. Sustainable Development concerns or enabling recovery and reuse of useful material from hazardous waste and thereby reducing the waste for final disposal is certainly a welcome thought. But the steps taken to achieve these in the draft Rule do seem ineffectual. The steps, in fact, seem to be more favourable towards making India a 'Dumping Destination' in garb of 'Recycling Destination'.

The question is whether we want this and is this the way forward?

by *Priti Mahesh*

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point out that almost in the same price range one brand does contain low level of lead concentration. More often than not industry's willingness is determined by regulations and the law of the land. Clark, *et. al.*, 2006 (Clark, C.S., K.G. Rampal, V Thuppil, C.K. Chen, R Clark, S. Roda., 2006. The lead content of currently available new residential paint in several Asian countries. *Environmental Research*. 102, 9-12) found that lead content in paints depended upon the regulations as the same multi-national brand has different contents of lead in different countries depending upon whether any regulation existed or not. It's rather unfortunate that the Indian government has not made BIS guidelines mandatory for paint industry to follow. It's not only an issue of paints as use of toxic paint on products makes products also toxic. Moreover, it clearly endangers children's health. Lack of awareness on lead related issues makes the task daunting. It's a challenge before civil society to make government and paint industries understand the problem in right earnest and to make them move towards lead-free paints.

Dr. Abhay Kumar

Silicosis: NHRC sends notice to the state/ Union territories

National Human Rights Commission decided to send notice to all state governments and Union Territories asking them to submit the details of Silicosis victims and the measures they have taken to curb the disease and to rehabilitate the victims.

Considering the petition filed by PRSAR, an NGO in its sitting on May 1st the Commission rejected the arguments of the government representatives about the steps taken to help those workers in Silica producing units. The Commission is of the opinion that the occupational hazard of silicosis is preventable if the working conditions are properly regulated and proper equipments are used.

It also reminded the government that if the Silicosis afflicts one worker it is the constitutional obligation of the government to take care of the person and rehabilitate him properly.

The Commission criticises the state governments for not coming forward with a policy giving specific details of preventive, curative and rehabilitative measures taken to benefit the silicosis victims.

The Commission also directed the Union government as well as the state governments to furnish all the details regarding silicosis victims, their rehabilitation, treatment facilities and the compensation packages to the commission within three weeks.

UPDATES

RECYCLING: MOST SOUGHT AFTER SOLUTION FOR E-WASTE

Atlanta E- waste conference at a glance

If the increasing number of participants especially the recyclers in the Atlanta E – waste conference held in October 2007 can be an indication, recycling is fast becoming the most acceptable option and solution for the ever-increasing problem of e- waste.

The two-day annual event on Electronic waste, organised by the North American Recyclers Association was attended by over 900 recyclers, which is significant. The conference, an annual event in the US seems to be getting bigger every year and the increasing number of participants bears testimony to the fact that recycling is gaining acceptance among this population. The driving force behind this change could be growing markets and also the changing nature of environmental debates across the globe.

It was very interesting to note that almost all leading recyclers of the world and the latest technology providers for recycling attended the conference with sheer interest. At the same time it was slightly disappointing to realize that India, which has been practicing recycling for its waste for many decades had only two recyclers participating in the conference.

The larger objective of the conference was to bring these technology providers and other stakeholders on one platform and offer facility for training of stakeholders, exhibition of products and services and initiating debate among stakeholders on concerns relating to electronic waste across the world. Toxics Link was also invited to this conference to share their experiences and perspective on e- waste in India.

The conference opened with a speech by the US EPA broadly stating how the US government visualized the issue of E- waste and the future road map. Though the United States of America does not have any Federal legislation on handling and treatment of E- waste at present, they are very keenly watching the progress of the five states in the country, where state regulations were implemented to manage this waste.



The EPA also did not give any indication of a federal E -waste law being enacted and enforced across the U.S. A. or any time frame for such legislation. While, this being the legislative background it was very heartening to hear some of the corporate speakers emphasize the market relevance of reverse logistics and its profitability. This is perhaps an interesting shift in a country, which has been largely land filling its waste to start many new recycling and refurbishing companies to handle such waste and engage in resource recovery.

The recycling companies were very keen to understand the current recycling practices prevalent in India and the potential to link up with this huge market. They were keen to know the Policy guidelines being formulated by the Indian government and the possibility of opening up this trade to the outside world and utilizing the cheap labour available in India. For them, it is purely a business opportunity and have no concern for the developing world, which will be fated to shoulder the hazards of e- waste dumped from the developed countries.

The discussions and the exhibits did reflect that the sector of waste and its treatment was being viewed seriously and significant investments being made in this sector to upgrade technology and improve performance.

The technology providers were conscious of the fact that they had to constantly push for higher efficiency in material recovery while environmental concerns being a key component of such cutting edge technology to be competitive and successful in future.

by Satish Sinha

TACKLE THE PROBLEMS OF MERCURY: THE FIRST OPEN ENDED WORKING GROUP MEETING

The first open ended working group meeting on Mercury held in Bangkok initiated a wide discussion on the issue of wiping out the menace from human world. The meeting also worked out various ways to face the challenges posed by the absence of mercury once it is completely wiped out. A report by Dr Abhay Kumar who represented TL at the conference.

The first open ended working group meeting on mercury began on November 12, 2007 at UN convention centre in



Bangkok, Thailand. The meeting was convened to arrive at a consensus on ways to face the challenges posed by the mercury and its threat to human health and environment. The meeting also discussed options such as voluntary measures and new or existing international legal binding treaty as possible options to tackle the mercury related problems.

Mr. Per Bakken, Head, UNEP Chemicals inaugurated the meeting. Mr. Shafqat Kakakhel, Deputy Executive Director, UNEP made opening remarks on behalf of Mr. Achim Steiner, Executive Director, UNEP. He perhaps set the tone for the meeting by remarking that lack of unity in dealing with the mercury issue was the biggest challenge and that narrowing down the options is the mandate for OEWG. Mr. Saksit Tridech, Permanent Secretary for the Ministry of Natural Resources and Environment, Govt. of Thailand welcomed the participants.

At the outset, officers to conduct the proceedings were elected. Mr. John Roberts of UK was elected as Chairperson of the meeting unanimously. Representatives from Belarus, Japan and Mexico were elected as Vice-Chairpersons while Nigerian representative was elected as the rapporteur.

OEWG discussed seven priority areas which included atmospheric mercury emissions, waste containing mercury, mercury demand-uses, mercury supply and primary mining, environmentally sound storage of mercury, contaminated sites, increase of knowledge in inventories, exposure etc and the different control measures that could be taken under each priority area, and then a discussion on instrument through which these control measures could be implemented. At the end of the meeting a list of control measures under each priority area was adopted. A splintered approach on taking on these control measures were avoided.

In the backdrop of burgeoning risk posed by mercury on health and environment and to find possible measures to mitigate the mercury related risks an animated discussion took place in the meeting right from the word go till its very end on the best instrument; voluntary or existing/new legally binding treaty, which could be optimally effective in tackling the mercury menace. It was interesting to find an obvious division

between developed and developing countries on the best possible instrument to face the challenge. While the developed countries seemed to favour voluntary path with possible exceptions from EU, Norway, Sweden and Japan; developing countries vehemently argued for legally binding treaty. Importantly while China seemed to go with voluntary measures Indian official contingent was conspicuous by its absence in the meeting.

In the end the UNEP secretariat was assigned a host of tasks after a marathon meeting of contact groups. The OEWG decided UNEP to do the following during the inter-sessional period:

1. To provide information on how different financial mechanisms (GEF, Multilateral fund of the Montreal Protocol etc.) would apply on a new protocol to the Stockholm Convention on mercury, a new free-standing treaty and on voluntary arrangements, and what is the funding currently available to address mercury;
2. Further analyse implementation options through which countries could pursue a new free-standing treaty, a new protocol to the Stockholm convention and voluntary arrangements;
3. Regroup the control measures within each strategic objective of each priority according to 4 clusters (inventories and knowledge building, BAT/BEP and product/standard restrictions, financial considerations and capacity building, and technology transfer), indicating at the same time which of the control measures can be implemented at

national level (considering countries' capacity to do so), and which would benefit from a coordinated international framework whether through legal or voluntary arrangements.

4. Carry out different studies on: qualitative analysis of costs and benefits for each of the strategic objectives, including information on the socio-economic costs of continuing the status-quo, assessment on whether projected appropriate demand could be met if primary mining was phased out, and preparing an updated paper on major mercury containing products and processes that have effective substitutes.

OEWG and NGOs

A strong contingent of about more than 25 NGOs from around the world was present in this meeting. NGOs met on 11th November prior to the start of the OEWG and discussed not only the state of mercury pollution and NGOs' position on it but also deliberated upon the contentious points likely to emerge during the OEWG. Based on these discussions a concise handout was prepared providing NGOs' position on the whole gamut of issue pertaining to mercury and OEWG agendas. This document was helpful to representatives of NGOs as it formed the basis for interactions with government delegations. It also helped in presenting a united face of NGOs. The fact that all points that were raised by NGOs during the meeting were accepted after approval from one country or the other was by no means a small achievement. It showed tact, resourcefulness and resilience of partici-



pating NGOs. It could not have been possible but for the untiring efforts of the few who provided leadership to NGOs there. NGOs also organized a few side events relevant to mercury, which proved to be hugely successful. NGOs also got opportunities for patient hearing from EU and Asia-Pacific countries' representatives.

In the end it can be said that efforts of NGOs bore fruits as what they had set out before OWEG was largely achieved given the fact that NGOs only have an observer status in such meetings. One of the primary objectives of NGOs were to narrow down the various options for instruments to a few, which in ultimate analysis was proved to be largely successful.

VRINDAVAN DISCUSS THE WAYS FOR EFFECTIVE WASTE MANAGEMENT



Toxics Link, in collaboration with Friends of Vrindavan, a local organization organised a two day workshop on 4th and 5th March, 2008 at Vrindavan, for an experience sharing & developing strategies and recommendations aiming at an effective management of biomedical and municipal solid waste in the region. The workshop had the participation of Health Care Facilities, Pollution Control Boards, NGOs, and general public from Vrindavan and the neighboring districts.

Vrindavan, situated on the banks of river Yamuna, has been a centre for spiritual learning for hundreds of years. Legends of Krishna and Vrindavan's historic past are stamped on thousands of temples here and tourists from all over the world flock to the city. Today, this holy city is lost in a maze of polluting traffic, jostling crowds and ever-present garbage. Tonnes of waste generated in Vrindavan every day by a population of nearly 40,000 residents and

huge number of pilgrims. Some of these are just dumped into vacant plots of lands; piling up, untreated for years together that provides a potential breeding ground for diseases.

In his inauguration cum welcome note Satish Sinha, Associate Director of Toxics Link highlighted the need of waste management, role and responsibility of the stakeholders and the possible solution to the problem of waste especially at a pilgrim place like Vrindavan. The holy city attracts thousands and unthinkingly pilgrims litter the holy place with a huge amount of waste and that needs a serious thinking to save the environment, both spiritually as well as naturally, he added.

Representative of Agra Pollution Control Board, Ashok Kumar Tiwari, Regional Officer, also participated in the workshop, emphasizing on waste management rules, he discussed the status of bio medical and municipal solid waste management in the region.

Omendra Shrivastava, Datt Enterprises Ltd, Agra, presented a detailed centralised bio medical waste treatment facility along with the methodology and the sustainability of the model. Prashant Pastore, Sr. Programme Coordinator of Toxics Link discussed issues on bio medical waste management & use of Mercury in health care facilities. He covered the adverse impact of dispersal of Mercury, alternatives of mercury instruments and the steps being taken for nationally and internationally.

Eco city project at Vrindavan supported by GTZ was also shared by Jagannath Poddar, Director, and Friends of Vrindavan. It was briefed in the workshop that how the project supported in making Vrindavan cleaner in a sustainable manner by producing the organic manure and hand made recycling products that contributes to the sustainability of the project.

Vaishali Nandan from GTZ, S.A Rahim, Chairman of PEN India from Tripuri, and representative of Toxics Link shared their experiences regarding the solid waste management at different places. The five 'R' (refuse, reduce, reuse recycling and responsibility) principles and role & responsibilities of the stakeholders were also highlighted. Vinod Kumar and Usha Rani of Toxics Link also shared the economically and environmentally sustainable model on decentralized solid waste management as well as the entire process of EM (Effective Microorganism) composting technique. The possible constraints and recommendations about community based solid waste management were also highlighted.

Mohammad Tariq

THE ROUND TABLE ON MERCURY

The round table on "Mercury in health care sector Issues, Practices and Concerns", held on 11th December 2007, at Mayor Radhakrishnan Hockey Stadium Conference hall, Egmore, Chennai by Toxics Link.



The purpose of this workshop was to promote exchange of information on mercury, its usage, practices, issues and concerns by providing a platform for bringing together views of various stakeholders. Participants of the workshop included relevant officials from government, pollution control boards, NGOs, health care facilities and experts in the state.

The Table was chaired by Deputy Director of Tamil Nadu Health System Project Dr. Vinay Kumar and the participants include Dr. K. Karthikeyan Joint Chief Environmental Engineer of Tamil Nadu Pollution Control Board, Environmental Activist Mr. Kalidas - Director of OSAI, Renowned health activist and Director of NALAMTHANA Mrs. Nithya Balaji, Dr. Vaidehi - Director of Pathology of Sundaram Medical Foundation, Mrs. Ponnamma Thomas Director - Nursing of Sundaram Medical Foundation, Dr. Thangamathi Medical Officer of Port Trust Hospital and Mr. Rohit Kumar, Assistant Environment Engineer of Tamil Nadu Pollution Control Board

The expertise of round table transformed it as a task force in the region and started lobbying with government for policy change.

The key outcome of the Round table is follows:

- Awareness among the medical staff and dentist should be addressed at the earliest
- To develop “mercury deposit bank” in few hospitals and set it as a pilot
- Children can be primary target audience and banning mercury in schools will be a step in the right direction
- To gain commitment from the Government to phase out mercury usage in all the hospitals
- To plan safer alternatives as the import of mercury may cease by 2010
- To involve these strategies in the medical and paramedical curriculum
- The Tamil Nadu Pollution control Board (THPCB) can be requested to check the ambient gaseous levels inside the hospitals and with dental care centers
- To mobilize people through an email campaign

- Even the role of mercury usage in practices can be pressed upon and they may be invited for the next round table conference

G. Arun Senthil Ram

CHILDREN CAN CHANGE THE WORLD!

Children are building blocks of tomorrow and their role in shaping up the future is very vital. As they are going to inherit the earth that we leave, their role in saving our environment assumes great importance. Students of today are going to be future consumers and instilling the values of Three R's (Reduce, Reuse and Recycle) among them can go a long way in saving our environment.

E-waste, which is a consumer driven waste, can see a positive impact with greater awareness among general masses, specially with students who are future leaders and users of these products. In order to foster knowledge and create awareness among the children regarding E-waste, Toxics Link organized a workshop on the issue on 25th of April 2008 at Shri Ram School, Vasant Vihar. More than 150 students and teachers from 12 schools attended this half a day workshop.

The workshop began with an interactive talk on E-waste by Mr Satish Sinha, Associate Director, Toxics Link. The talk was followed by question-answer session in which the students came up with interesting queries and it was heartening to see their interest and eagerness to learn. Their concern towards environment also came out quite clearly through the interactions.

This was followed by screening of the film “A Second-Hand Life” by Ms Nutan Manmohan. The film which clearly elucidates the difference of technology in the lives of two children; one- a city student learning and having fun with computers and the other- a young kid in the by lanes of Delhi involved in recycling of E-Waste, was a moving experience for many present.

Toxics Link also launched its student's blog- students4environment in this workshop. This blog will act as forum for all students concerned with environment. They can post pictures, articles, raise

issues and find ways in which they can contribute and can become stewards of the environment. A poster and writing competition was also announced during the workshop and the topic for the same is “E-waste: Hazards and Problems”.

The event ended with the first Student 4 environment Quiz. Students from 10 schools participated in this fun-filled quiz competition where students' knowledge on various issues of environment like Waste management, Climate change and E-waste was tested. The winners of the quiz were students from Shriram School, DLF and BlueBells School International and the runners up were students from Chinmaya Vidyalaya and Amity International School, Saket.

This programme, though initially organised with limited schools in Delhi, wishes to involve children from all over the country. It is addressed to all children who care about the environment; want to make their voices heard! It is important for you to express your views and let adults know what your generation thinks and cares about. The earth needs dedicated, caring people like you who are interested in learning about environmental problems and possible solutions.

Priti Mahesh

EXPERIENCE SHARING WORKSHOP

An experience sharing and evaluation meet was held on 4-5 December 2007 at Surajkund, Haryana. The participants were invited to share their experiences being a part of the initiative, which in turn helped understand the efficacy of the program. For EEJP it was an opportunity to learn about the impact the various activities had at the grassroots level. Comments and feedback were also collected from the awardees. These were later evaluated and documented, utmost care being taken not to be judgmental. A critical analysis of the EEJP initiative and some useful recommendations and suggestions coming out of the process shall contribute to making this initiative much more relevant.

Piyush Mahapatra

INTERVIEW

Q 1: Could you explain briefly about your organisation and its areas of activities?

GRAIN is a small international NGO working on issues of agricultural biodiversity. Our main concerns are genetic erosion and people's control. We work in partnership with organisations and people's groups across the world to enhance community control over local genetic heritage (seeds, plants, livestock, etc.) and the knowledge which goes with that. The loss of biodiversity destroys options for the future and deprives people of a key means for survival. GRAIN looks at such things as agricultural research and intellectual property rights (IPR) and has become more and more focused on understanding and exposing growing corporate influence. Changing power structures have also forced us to broaden our work from our past focus on the intimate relation between agricultural biodiversity and crop production to the larger context of social struggles and food systems. Although our work goes back to the early 1980s, GRAIN was formally established as an independent foundation in 1990. From a small Eurocentred group in the early 1990s, GRAIN is today a decentralised team of fifteen staffers in nine countries and spread across five continents, carrying out a broad and challenging programme particularly in "developing countries".

2. According to you what are the major reasons for the present food crisis in the world?

There is something fundamentally flawed in food and agriculture policies. They

have lost their focus from feeding people, nurturing health, supporting farmers and safeguarding agro biodiversity to cultivating the economic interests of a select few. The matter is made more complex with power elites in local and national settings further neglecting the basic needs of people for diverse reasons. The present food crisis is largely the outcome of both a concerted push towards a "Green Revolution" agricultural model since the 1950s and the trade liberalisation and structural adjustments imposed on poor countries by the World Bank and the International Monetary Fund since the 1970s. These policy prescriptions were reinforced with the establishment of the World Trade Organisation in the mid-1990s and, more recently, through a barrage of bilateral free trade and investment agreements. Together with a series of other measures, they have led to the ruthless dismantling of tariffs and other tools that developing countries had created to protect local agricultural production. These countries have been forced to open their markets and lands to global agribusiness, speculators and subsidised food exports from rich countries. In that process, lands have been diverted away from serving local food markets to the production of global commodities or off-season and high-value crops for Western supermarkets making most of the so-called developing countries net importers of food. Readers of Toxics Link bulletins would also appreciate the problems with chemical fertiliser based food production, which is what the global food system is all about. Let's recognise that neo-liberalism can not feed us all. Having said that, we have

to also move quickly from merely analysing the causes to practical solutions in agrarian reforms and policy changes.

3. What you think about India's cultivation for bio-fuel?

One need not wait to read the text of the proposed national biofuel policy to know the direction this discussion is taking in the country. The Government of India is enthusiastic in supporting biofuels, be it ethanol or biodiesel, and is justifying their need as a response to climate change, rising petrol bills and of course "development". What is interesting to note is the headway corporates – both foreign and domestic, have made in this direction despite the absence of a coherent policy. State governments seem to be competing with each in offering a conducive environment for private investors whilst going ahead with their own programmes. But yes the actual cultivation of feedstocks is contentious in itself. Indeed, as per India's National Biofuel Mission the estimated land for potential jatropha plantation is given as 13.5 million hectares, which includes "wastelands". These so called "waste" lands are a source of living for many pastoralists and landless cultivators. And if the targets are set for 10% blend of motor fuels within the next decade, over 12 million hectares will have to be brought under "biofuel" crops. The targets are daunting and may be used to speed track avoidable damage and displacement of small farm agriculture and people whose lives and livelihoods are so intrinsically dependent on it.

4. Will the bio-fuel euphoria endanger our food security?

In short, yes it can. IF "biofuel" production is to be within the same template as the causes of the food crises discussed above. Then we are neither making ourselves food secure nor more importantly facilitating food sovereignty. Vital resources such as land, water, seeds, etc. together with ag research getting diverted to crops of "economic" value alone will only add to the crises. I hope by now we can all see that our food system itself is endangering our food security, leave aside biofuels and other factors. We do need a head-on confrontation with the global food agro-industrial



A lawyer by profession Shalini began her career in the Supreme Court of India. Thereafter, her groundings in international and national law were made whilst in WWF India. Since October 2001, Shalini is handling the GRAIN desk in New Delhi, from where she works on issues of trade and writes at the Asian regional level.



Jatropa plant

system. Though the “food versus fuel” controversy is not exaggerated. Also simply growing your “biofuels” or even your food crops in some other country as many governments are encouraging, only keeps the problem alive and worsens the situation in another location. Already the initial “euphoria” (as you rightly called it) about “biofuels” is beginning to ebb.

5. It is commonly believed that bio-fuel plants like Jatropa is good for dry and arid land and it will benefit the farmers in those areas. Is it true?

Every plant has a role to play in ecology as long as the natural balance is not disturbed. Jatropa has certain traits the local knowledge of which has made even local communities use it, for instance, as a flame in a torch or a bio-fence that cattle can neither eat nor walk through. Nonetheless, both local peoples and agriculturists are aware of the allelopathic qualities of the plant, which means that it can have harmful effects on neighbouring plant species. Thus its wide scale cultivation can become a problem. So the combination of its characteristics plus the trend towards vast monocultures will threaten biodiversity. It is perhaps true that the plant can grow with less water, but then its yield does suffer making it unviable. Also if it were so good in dry and arid land then

why are so many state governments giving subsidies for drip irrigation for jatropa cultivation?

Might I add that GM (genetically modified) varieties of jatropa are also being researched upon, as are other crops used as feedstock by the biofuels industry such as corn, sugar cane and tropical sugar beet. Please also be aware that in certain parts of the world, such as in Western Australia the Agriculture Protection Board issued a ban against planting jatropa in 2006 because of its invasive qualities and toxic effect on human and animal health that risk the Australian environment. Ironically Australian companies like Mission Biofuels Ltd. with offices in Malaysia and India are promoting jatropa in Asian countries!

Each area throws up its own angles of jatropa cultivation. Of course a major concern is the manner in which these energy crops are adding on to the list of cash crops. The dying away of multi-cropping and agrobiodiverse practices makes easy the entry of a plantation crop. Many villagers recall how even a decade ago there were many more crops that were being grown. In Orissa, small farmers shared with GRAIN their concerns about being locked into a contract period which disallows them from growing anything else on their piece of land. This version of

“contract farming” was being touted as a long term investment & returns plan to the farmer. Agents had promised a buy-back of jatropa seeds at the rate of Rs.5 per kg. The outer seed coat had to be removed for collection, which means that the labour costs for de-shelling were also not included. The cost of sapling @ Rs.3 each would also be collected from the grower. The loans promised to them were not yet forthcoming. In other parts, despite what is said about how the jatropa shrub bears fruit for 40-50 years, none of the farmers as those in Rajasthan had ever seen a tree older than 5-7 years! Western and Central India also have horror stories of land grab. Tribal welfare and watershed management programmes are also being used to promote jatropa. Others talked of how NREGA schemes & micro credit for women self-help groups were encouraging jatropa and pongomia cultivation. There were no such incentives likewise being given for biodiverse cropping.

6. NGOs argue that bio-fuel is only for the rich and it will in no way benefit the poor. Could you explain?

First, it needs to be understood that biofuels are already being used by the disadvantaged whether at the rural level or by the urban poor. Animal dung, wood stock, rice straw, crop residues are all instances of bio-based fuels in use by those who live an off-the-grid life. It is the big corporate-sponsored processing plants and large-scale plants of agrofuels that are not directed to the poor. These so called “bio”fuels as they are being promoted today do not bridge the energy divide. Most of the agro-industrial production of biofuels is directed to industrial and transportation needs. Neither do they address the basic fuel or the transportation of the not so privileged masses who do not drive cars. This is also vitally linked with the fact of unnecessary transportation and mechanisation associated with the global food system which adds “food miles” and creates more demand for motor fuels. Yes, one does hear of the one odd village electrified with jatropa. But you have to be blind to not see the growing disparities. Also the test is to see if such endeavours do n contribute to community sovereignty and

Continued on page 16

NATIONAL NEWS**Chidambaram takes care of tigers**

The declining tiger population in the country figured in the budget proposals for 2008-09 with the government announcing a special package for the conservation of the big cats. "The tiger is under grave threat," Union Finance Minister P. Chidambaram said, while presenting the budget estimates in Parliament on Friday.

Mr. Chidambaram said that in order to redouble the government's effort to protect the tiger, there was a special allocation of Rs.50 crore for the National Tiger Conservation Authority. The bulk of the grant would be used to raise a special armed Tiger Protection Force.

In the last budget the Minister announced an expert committee to study the impact of climate change on India and identify the measures that would be taken in the future to deal with climate change. "Even while adhering to the principle of common but differentiated responsibility, we can and we must do a number of things in our self-interest," he said, while advocating the need for promoting clean technology, reviewing fuel emission and efficiency regulations.

E-waste, hazard still neglected

India generated 3.3 lakh tonnes of e-waste in 2007 as dumping from developed countries and informal recycling added to environmental degradation, a new study released on Thursday revealed.

E-waste is expected to touch 4.7 lakh tonnes in India by 2011, according to the study unveiled by MAIT, the apex body representing India's IT hardware, training and R&D services sectors, together with GTZ, the German Technical Cooperation Agency.

Electronic waste or "Waste Electrical and Electronic Equipment" (WEEE), according to the WEEE directive of the European Commission, is defined as waste material consisting of any broken or unwanted electrical or electronic appliances. However, the MAIT-GTZ assessment study focused only on the waste stream of computers, televisions and mobile handsets.

The study, said to be a first-of-its kind to inventories e-waste in the country, revealed a total of 3.3 lakh tonnes of e-waste is generated annually in India, while an additional 50,000 tonnes is illegally imported into the country.

However, only 19,000 tonnes of this is recycled due to high refurbishing and reuse of electronics products in the country and also due to poor recycling infrastructure.

Currently, e-waste recycling, especially processing, remains concentrated in the informal sector, which due to poor processing technologies and very small capacities, contributes significantly to pollution and environmental degradation

Greenpeace strongly believes that the ultimate solution to the e-waste crisis lies not in management but in prevention.

It is shocking that most Indian companies, despite their global pretensions, lag far behind their international counterparts in the management of toxic substances in their products and their e-waste. This clearly reflects their reluctance to offer green and clean products to the public in tune with global trends, opines Green peace. Green peace today called upon the electronics manufacturing industry in India to adopt 'producer responsibility' in principle to deal with growing e-waste menace at the release of the second version of the Indian Guide to Greener Electronics here.

The market leader in India, HCL captures the top position amongst Indian companies by racing ahead of Wipro in this second version of the ranking guide. Zenith has moved some way from its all-nil position, whereas, PCS is yet to open its account even after a series of parleys between the company and Greenpeace. These four leading Indian computer manufacturers are being ranked on the basis of information provided publicly on their websites and are compared to the global rankings. The ranking shows that most Indian companies have yet to be on a par with global brands.

EFY NEWS NETWORK**India tiger population less than half earlier estimate: census**

India's rare Royal Bengal Tiger population has plunged to 1,411, drastically



lower than the estimated 3,700 believed to exist five years ago, researchers said.

Rajesh Gopal, who heads Project Tiger, a conservation programme launched in the 1970s, unveiled the latest figures and blamed "poaching, loss of quality habitat and prey" as the main reasons for the decimation. The census, which took nearly two years to complete, counted the big cat population inside dedicated reserves and those in forests, Qamar Qureshi, a scientist with the Wildlife Institute of India, which conducted the survey, told AFP.

An earlier survey in 2002 had estimated the number of tigers in India at 3,700, with the population of those in protected sanctuaries estimated at 1,500. Conservationists have long complained that many Indian forestry posts lie vacant, while the staff that do exist have little in the way of funds, making them no match for poachers.

Tiger hunting is illegal worldwide and the trade in tiger body parts is banned under a treaty binding 167 countries, including India. Despite the population plunge, Gopal and Qureshi said there was still hope for saving the tiger and salvaging the Project Tiger programme, touted as one of India's most successful conservation efforts.

"There is a lot of hope. The tiger population is capable of bouncing back if the quality of the forests is preserved and there is enough prey," Qureshi said. Conservation efforts will work if people living near tiger reserves are involved in the process, he added.

AFP

INTERNATIONAL NEWS**S.S Oceanic laden with toxic Asbestos heads for Alang**

Following the French warship, Le Clemenceau, an Iranian tanker, M V Rashleigh and the Norwegian ship, Blue

Lady (which is being dismantled at present), yet another ship named as S.S Oceanic (previously known as the S.S Independence), owned by Maryland-based Global Shipping Lc. (GSL), is heading towards Alang, in Suarashtra coast, Gujarat, India. A fresh controversy has arisen once again as the ship is said to be carrying 210 tonnes of toxic polychlorinated biphenyl (PCB) and an estimated 250 tonnes of asbestos. Environmentalists and ship breakers lock horns when the Norwegian ship, Blue Lady was beached off the Alang coast two years back. Meanwhile Basel Action Network (BAN), who looks at worldwide toxic – trade has asked India to route the ship back to the US. If S.S Oceanic beaches at Alang, it will not be the first ship to flout the apex court's orders.

The Hindustan Times

Nargis hit Burma due to stripped forest

Nargis, the most devastating cyclone of the year so far, had struck a blow of great sorrow not only to Myanmar but also the rest of the world. The catastrophic cyclone pushed a wall of water through the Irrawaddy Delta, a low-lying, densely populated area that had been stripped of its protective trees, Mangrove forest. The delta had lost most of its mangrove forests along the coast to shrimp and paddy farming over the past decade. That removed one of the nature's best defenses against violent storm. According to ASEAN secretary-general Surin Pitsuwan said Burma's coastal areas were left exposed to last weeknd's catastrophic cyclone due to disappearing mangrove forests, as a result the destruction was of gigantic proportion. The official figures indicate 100,000 people perished in the catastrophe.

Mangroves have long been known to act as "bio-guards" for coastal development. According to Jeffery McNeely, chief scientist for IUCN, "Where the saltwater and freshwater meet, that is where the mangroves grow; they often extend from several hundred meters to a few kilometers inland. Especially in river deltas, mangroves prevent waves from damaging the more productive land that are further inland from the sea". A study published in late December 2005 of the Asian Tsunami said healthy mangrove forest helped save Sri

Lankan villagers during the disaster, which claimed the lives of more than 200,000 people.

A couple of decades back, Bangladesh too was hammered by a typhoon that killed around 300,000 people. The people of Bangladesh realized that mangroves could have resisted the typhoon. Since then the country actually seen an increase in mangrove forests.

There are very limited areas that are densely covered with mangrove in Irrawaddy. Had Myanmar learnt the lesson from its neighbor and made an effort to rehabilitate and replant mangrove, it could have saved itself from this utter catastrophe. *Sources: ASEAN, IUCN, FAO,*

World species dying out like flies says WWF

World biodiversity has declined by almost one third in the past 35 years due mainly to habitat loss and the wildlife trade, the World Wide Fund for Nature (WWF), said in London on May 15th.

"Biodiversity underpins the health of the planet and has a direct impact on all our lives so it is alarming that despite of an increased awareness of environmental issues we continue to see a downtrend trend," said WWF campaign head Colin Butfield.

However, there are small signs for hope and if government grasps what is left of this rapidly closing window of opportunity, we can begin to reverse this trend.

WWF's Living Planet Index tracks some 4,000 species of birds, fish, mammals, reptiles and amphibians globally. It shows that between 1970 and 2007 land-based species fell by 25 percent, marine by 28 percent and freshwater by 29 percent.

Marine bird species have fallen 30 percent since the mid-1990s.

The report comes ahead of a meeting in Bonn of member states of the U.N. Convention on Biological Diversity to try to find out how to save the world's flora and fauna under threat from human activities.

Some scientists see the loss of plants, animals and insects as the start of the sixth great species wipe out in the Earth's history, the last being in the age of the dinosaurs, which disappeared 130 million years ago.

Reuters, London

Green house gases emission highest in 8 lakh years

Current levels of greenhouse gases in the atmosphere are higher than at any time in the past 800,000 years. A recent study of Antarctic ice shows an increase level of Greenhouse gasses in atmosphere over 800,000 years. This is an evidence of mankind disrupting the climate. Scientists believe this is because of an increase in concentration of the main greenhouse gases: carbon dioxide, methane, nitrous oxide, and fluorocarbons.

Carbon dioxide and methane trapped in tiny bubbles of air in ancient ice down to 3,200 meters (10,500 ft) below the surface of Antarctica add 150,000 years of data to climate records stretching back 650,000 years from shallower ice drilling. Several studies are carried on to examine the presence of level of carbon dioxide in different parts of Antarctica with even deeper ice, in some places 4,500 meters thick that could yield atmospheric records dating back 1.5 million years. The study also linked variations in methane to monsoons.

The UN Climate Panel fears are that if people keep producing such gases at increasing rates, the results will be negative in nature, such as more severe floods and droughts, increasing prevalence of insects, sea levels rising, and Earth's precipitation may be redistributed. These changes to the environment will most likely cause negative effects on society, such as lower health and decreasing economic development.

The Times of India

PROFILE NEWS-A

Nature Environment & Wild life Society (NEWS-A), Anugul (Orissa) based NGO was established in 2004 with an objective to work for and promote stability of the ecosystems through the protection and restoration of biological diversity, including the diversity of the species, age diversity, genetic variability as well a the structural component. Since its inception it is working very collaboratively to work towards the ecological restoration and conservation of the land and water resources and to ensure the ecological integrity of all such efforts by working as far as possible, with entire area's land escapes, and with all interrelated communities in it.

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are also ecologically sustainable among other things.

7. What is GM contamination and why it is important to farmers?

GM is used to mean “genetic modification” or “genetically manipulated”. Tampering with the original natural genetic structure of living material such as plants and animals is itself “contamination” of its genetic structure. Through GM matter foreign to a living organism, which would not otherwise be present in it naturally, is forcibly introduced into its genome. Once such a GM “product” is released in the open where it will interact with the whole living world and enter the agroecological cycle it could cause genetic pollution by an “accidental transmission” into other wild or cultivated species. There are several transgenic crops, fish and animals that are being researched upon in public sector institutes and more so by private biotech enterprises. GM contamination of small farm agriculture has not to be only seen from the technical, “scientific” level, but with its social, ethical, cultural and political dimensions as well. In this discussion let’s remember two things, no one has ever really seen a gene. Second, no one can control natural forces; neither the brightest “scientist” nor the most efficient regulator. So with no means to either conclusively know how the GMO will react in its interaction with the living environment and having no way to “recall”, “clean-up” or “contain” genetic pollution (unlike chemical pollution) the risks are much too high. Sure this issue is most important to farmers AND fisher folk and indigenous communities alike, as it is about control and conservation. But it has to be everyone’s concern as this is about the food we all eat and it is about keeping alive life and diversities on our shared planet Earth.



10. What do you think about the Global seed vault buried in Svalbard, Norway?

Its the “burying” of seeds literally in an icebox that is of concern. This *ex situ* approach is basically designed for the needs of “scientists” and research institutions both public and increasingly private; this is not about supporting small farmers and peasant communities. The perverse logic being that farmers’ varieties get replaced by newer ones from research labs and the old ones from the farm be put aside as “raw material” for future breeding. So “new” and “improved” varieties can be marketed as latest products. This is part of the plan to turn the very farmers – the original breeders into mere consumers. What need to be arrested are the very causes of loss of diversity on the farm and of the seed. Not put the planting material far and away from farmers’ fields! The question also to ask is did the small peasants ask for such gene banks to be set up in the first place? Such an approach only creates a false sense of security, whilst the real threats to agro biodiversity are NOT being addressed. For that there has to be state responsibility and corporate accountability for any act against food, seed, feed on the land. The real stuff and with that the real seed savers on the ground need to be secured. That is the ultimate back-up plan. We have to “invest” in biodiversity as an insurance in itself. The value of *in situ* (on farm) conservation by

local communities themselves can not be emphasised enough. Bottom line - (food) sovereignty can only be with “seeds in your hands”! So I close this with the thought with which we started this conversation – it IS urgent that we overturn our present seed, food and farm policies.

Thank you for the attention. For more please see <http://www.grain.org>



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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Quotes from the Earth

Quotes from the Earth is a compilation of films on the themes of Hunger, Water and Survival. To screen the films in your city, please get in touch with Pragya Majumder at pragya@toxicslink.org. The films are available against a nominal security deposit. You can view details about the films at <http://www.toxicslink.org/filmfestival/2006/>