



## Global anti-toxic treaty comes into force – India lags behind

**F**ebruary 17, 2004 was a happy day for anyone involved in the fight against Persistent Organic Chemicals (POPs). France's ratification of the Stockholm Convention on this day completed the required 50 signatories for the Convention to become a legally binding International Convention.

Now the Convention will come into force after a 90 day countdown on 17 May, 2004, as per Article 26 of the Convention. The treaty is not only about ridding the world of a certain class of toxic chemicals but also about promoting sustainable development. This Convention with its 'sisters' the Basel Convention and the Rotterdam Convention provides a model for international environmental governance and for collaboration amongst multilateral environmental agreements. This has been prepared in the context of a concept of wastes and chemicals conventions cluster.

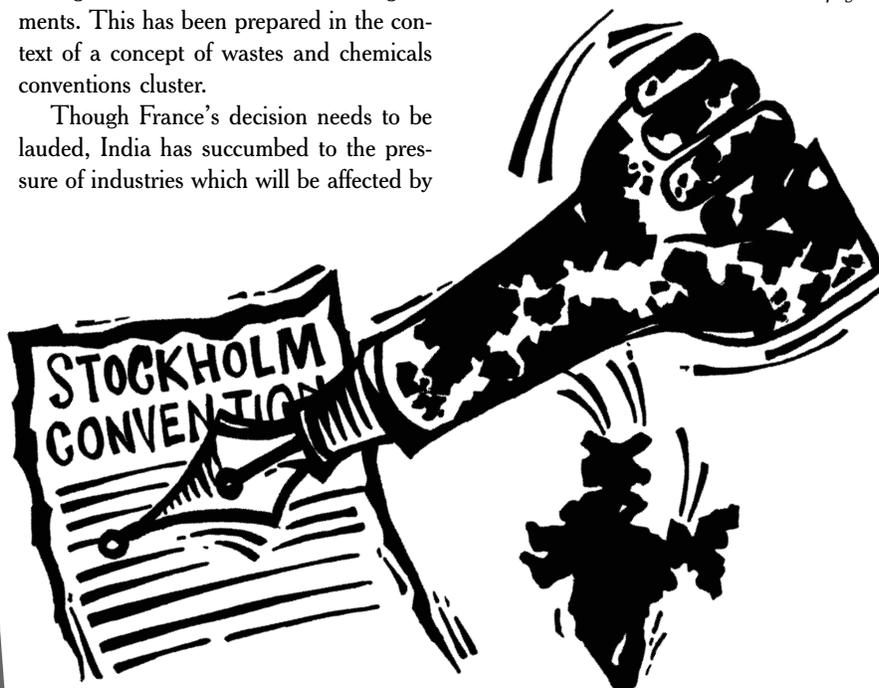
Though France's decision needs to be lauded, India has succumbed to the pressure of industries which will be affected by

the convention. The Indian government had signed the treaty on 14 May, 2002 but had not ratified it.

It seems that the Rs 125,000 crore chemical industry has tremendous influence over the government. The industry had publicly asked the government to refrain from ratifying the treaty, according to a press release of the Indian Chemical Manufacturers Association issued prior to the Seventh Session of the Intergovernmental Negotiating Committee in July 2003.

Our government should see the writing on the wall, and face the future with more reality. It has let down workers in chemical factories and the people of India whose health and quality of lives is at risk from POPs.

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## Protecting ourselves from a cleaner world!

Europe is cleaning up. Through a series of new policy and legislative initiatives – some of which are so progressive that they even have the Bush Administration worried – the European Union, through its Commission, is re-defining ‘clean.’ However, as they get rid of toxics like mercury, pesticides, asbestos, plastics and electronic wastes, will they all end up now in the Indian subcontinent?

It is already happening, and we must ensure that this will not continue to take place. Paradoxically, we still refuse to protect ourselves by not ratifying legislations like the POPs treaty or the Basel Ban, which will protect our public health from such events.

Though over the years, Europe has set the pace for how a ‘clean environment’ is defined, the difference between what is clean and not clean is growing rapidly. For example, while we in India do not even have an air emission standard for mercury from thermal power plants (Indian coal combustion spews mercury all over our agricultural fields), Europe has reduced its emissions by over 50 per cent over the past three decades, and is gradually moving to natural gas. Similarly, when the mercury based chlor-alkali plants close in Europe in 2006, will the 12,000 odd tons of mercury currently contained be released on the world market, and be mopped up by leaky Indian chlorine and thermometer plants?

With the new European WEEE directive coming into force this year, which mandates producer responsibility in items like electronic waste and legislates collection and recycling, we may see an influx of such hazardous wastes into India. In fact, we already are. In another far-reaching initiative started in October 2003: REACH, involving registration and chemical substitution in products, Europe has threatened to put the global chemical industry in the dock, since over 1,00,000 chemicals are being reviewed for health impacts. It is doubtful if Europe has the monitoring capacity to ensure that their poisons are not exported, despite their intent to do so. Hence, while on the one hand the Bush administration is busy diluting environmental norms, which includes export controls, which in any case permit such exports from the US, the people of Europe are demanding to be squeaky clean and that too through a ‘prevention is better than cure’ approach. But neither in the US nor in Europe is there a public consciousness that there are other people too who exist on planet earth, and taking garbage out of their systems should not mean putting it in ours!

No longer can we isolate ourselves from this globalisation of toxics and wastes. It is up to civil society to be vigilant and ensure that we do not become the last dumping ground in the world. For a start, then, India can ratify the POPs treaty and Basel Ban, the one piece of international legislation, that will protect our shores from environmental injustice.

*Ravi Agarwal*

*Continued from page 1*

Studies by the United States Environmental Protection Agency (USEPA) and the International Agency for Research on Cancer (IARC) clearly show that workers in chemical factories are at great risk of liver, lung and brain cancers, skin tumours and the dissolving of bones at the tip of their fingers.

The treaty seeks to control the production, use, import, export and disposal of these toxic chemicals, and has established tough international controls on an initial cluster of 12 chemicals, of which most are subject to an immediate ban. This ‘rogues gallery’ of chemicals as per the treaty – also called the ‘dirty dozen’ – comprises of aldrin, chlordane, DDT, dieldrin, endrin, heptachlor, mirex, toxaphene, polychlorinated biphenols (PCBs), hexachlorobenzene, dioxins and furans. A POP Review Committee is yet to consider additional chemicals for the POP list on a regular basis to ensure that the treaty is responsive to new scientific findings. Among the dirty dozen only DDT, PCBs and unintentional POPs — that is, dioxins and furans — are relevant to India, according to the March 2001 issue of *Parivesh*, the newsletter of the Central Pollution Control Board.

As the name ‘Persistent Organic Pollutants’ implies, once introduced into the environment, either intentionally by industry, as an agrochemical, or unintentionally as a by-product, these chemicals persist in the environment. They can be atmospherically transported to sites far from the site of their introduction – sometimes across the globe through sea and wind currents. The high solubility in non-aqueous media such as fats and oils leads to their high bioaccumulation in fatty tissue where concentrations can become magnified by up to 70,000 times the background levels. Fish, predatory birds, mammals, and humans are high up the food chain, and therefore, they absorb the greatest concentrations of POPs. The pollution levels are so high that every human in the world today carries traces of these chemicals in their bodies. POPs are also highly stable compounds that can last for years (usually decades) before breaking down. They circulate globally through a process known as the ‘grasshopper effect’. POPs released in one part of the world can, through a repeated process of evaporation and deposition, be transported through the atmosphere to regions far away.

Most POPs of international concern are synthetic organo-chlorine compounds, that is, they contain carbon and chlorine. Some of these chemicals have industrial application, such as the polychlorinated biphenyls (PCBs) and some are the unintentional by-products of industrial operations.

Governments would now be required to pursue a rapid start to action under the treaty when they meet for the first session of the Conference of the Parties to the Convention (COP 1) in Punta del Este, Uruguay in early 2005. This COP would also establish a committee for evaluating other chemicals and pesticides that could be added to the initial target list of 12 POPs.

Another key goal for the COP will be to finalise guidelines for promoting ‘best environmental practices’ and ‘best available techniques’ that can reduce or eliminate releases of dioxins and furans (perhaps the most toxic of all the POPs) from a wide range of industrial and other sources.

Most of the 12 chemicals will be banned immediately. How-



## FEATURES

### Suryapet: A municipality re-engineers SWM

**F**rom a small town, spread over a meagre 34 square kilometers, comes a story that could transform the entire sub-continent.

Suryapet, situated in the Nalgonda district of Andhra Pradesh, with a population of 1,03,000 is another medium-sized non-descript town dotting the urban landscape of Andhra Pradesh.

This inconspicuous town does not boast of any great economic enterprise or of a swanky urban infrastructure. However, Suryapet's claim to fame lies in the efficient and effective solution to its solid waste management (SWM) problem which many of its better-endowed sister cities in the state or the country are yet to comprehend.

Suryapet is credited to have taken steps for SWM much before Municipal Solid Waste (Management & Handling) Rules, 2000 became mandatory for municipalities.

Suryapet's success story begins in December, 2002, when the newly appointed Municipal Commissioner set about finding a solution to the not-so-clean town. To manage the solid waste of the city, the municipality took up the responsibility of turning organic waste into compost and earning

through selling recyclables.

For this to happen, consensus was reached to make primary segregation at the household level compulsory. Household segregation required widespread public participation. It was realised that such participation could best be obtained through an early, and effective, public education programme. In January 2003, the municipality launched an extensive public education programme designed and initiated by the municipal staff in partnership with DWRCA.

The awareness program had in its IEC toolkit initiatives including street corner meetings, street plays, distribution of pamphlets, message stickers, door-to-door visits by groups of 5-6 women volunteers applying a vermilion *tilak* on the forehead of each resident along with disseminating information on primary segregation of municipal waste. For the first time, the citizens of the city were pleasantly surprised to witness their municipality in a proactive mode.

The street meetings combined the top-of-the-mind civic problems of the citizens with the benefits of waste segregation at source. The meetings would typically discuss issues including the right age for marriage, compulsory education, importance of adult education, reasons for the spread of communicable diseases, implementation of RCH programmes, problems of child labour, etc. While the lead issues were used to gain the attention, the benefits of source segregation of solid waste was factored into

ever, the use of DDT for disease vector control under World Health Organization guidelines is considered an acceptable purpose because it is essential in many countries to control malaria transmission by mosquitoes. This will permit governments to protect their citizens from malaria – a major killer – until they are able to replace DDT with chemical and non-chemical alternatives.

In addition to banning uses, the treaty focuses on cleaning up the growing accumulation of unwanted and obsolete stockpiles of pesticides and toxic chemicals. Dump sites and toxic drums from the 1950s, '60s, and '70s are now decaying and leaching chemicals into the soil and poisoning water resources, wildlife and people.

In the case of PCBs, although they are no longer produced, hundreds of thousands of tons are still in use in electrical transformers and other equipment. Governments have until 2025 to phase out these uses, which gives them time to arrange for PCB-free replacements. Not later than 2028, governments must dispose of these PCBs in an environmentally sound manner.

The Stockholm Convention holds the promise of a POPs-free world for future generations. Now it is incumbent upon our government to take cognisance, and to act swiftly through a ratification of the Convention. One wonders why the government is giving precedence to the formulation of a National Environment Policy instead of ratifying the Stockholm Convention, especially in the backdrop of the Joint Parliamentary Committee's report on chemicals and the food safety case in the apex court. Perhaps better sense will prevail after France's decision.



**Gopal Krishna**

*Door to door mobilisation by a team of municipal staff and ward councillors.*



*Manure being prepared from the organic waste.*

the discussions. The link between solid waste management and household well-being was reiterated by illustrating reduction in household expenditure on medical services emanating from better management of solid waste and resulting in lower incidence of communicable diseases.

Apart from households, other targeted segments for the IEC campaigns included school children, fish and vegetable market associations, hawkers and pavement dwellers. Along with soliciting voluntary compliance through creating awareness, the Suryapet municipality used the provisions of the Municipal Act to penalise (mostly commercial establishments) for littering. The message was clear that the municipality was serious in its efforts to clean up Suryapet. Citizens were slowly realising that SWM was a major civic issue, the solution to which lay in collective action.

While awareness and willingness of the citizens for segregation of waste represented one of the variables in the SWM model of Suryapet, another important requirement was the willingness and ability of the municipal sanitation workforce to capitalise on the interest of the households in segregation and cleanliness. The municipal sanitation workforce in Suryapet is not particularly known for its efficiency and regularity in discharging its duty. It was realised that an unresponsive sanitation workforce could potentially derail the SWM effort being

made by the municipality-citizen alliance. Group meetings and meditation programs were organised for different levels of the municipal sanitation staff.

Effort was also made to provide salaries and other service benefits in time. Small innovations such as long-stick brooms were provided which do not require squatting while cleaning streets. Uniforms were also provided to the staff. These small, but important, initiatives had a great impact on the self-esteem and self-worth of the officials and staff manning the Suryapet municipality's Sanitation Department. The Sanitation Department underwent a transformation from being a part of the problem to becoming a contributor to the solution.

While the zeal to transform is the immediate precursor for reform, continuous availability of resources had been ensured to sustain the effort.

Municipalities (including Suryapet) are not known to have enough resources to take up new initiatives. The Suryapet Municipality tapped many non-traditional sources of fund. The Andhra Pradesh Scheduled Caste Cooperative Finance Corporation provided loans at a low rate of interest for vermin-compost sheds. The private sector supplemented the municipal resources by providing sets of dustbins (8,000 pairs of red bins for recyclables and green bins for organic waste), which were distributed to the households free of cost. With increased awareness of the citizens, willingness of the municipal staff and the availability of re-

sources, the efforts were paying off – Suryapet was about to achieve a momentous milestone of being the first city free of municipal dhalaos.

Today, the majority of the households in Suryapet are segregating garbage at source. The figure is estimated to reach 100 per cent by June 2004.

The town is divided into seven zones with one tractor accompanied by sanitary personnel servicing each zone. On entering a lane at a designated time the tractor sounds a whistle, which is an indication for the households to come out and handover their respective pair of dustbins to the municipal staff, who, in turn, dispose off it into the tractor. With door-to-door waste collection in place, the municipality has been able to remove 360 roadside dustbins (an action which doesn't have many precedents).

Approximately 28 tons of organic waste is sent to the composting site daily. The municipality intends to use the manure, approximately 10 tons, to maintain the city's green areas. The recyclables have earned the municipality a revenue of Rs. 26,000 in the previous year. The door-to-door collection has led to less blocking of drains and littering of streets, enabling the sanitation staff to be allocated for garbage collection effort.

Suryapet has transformed itself into a much cleaner city in a year and a half. One positive ramification has been an improved image of the municipality in the eyes of the citizens.

House tax collection is reported to have gone up and the municipal staff has achieved a higher social esteem amongst the residents of the town. Dustbins hung from streetlight poles have been provided for the passerby to dump litter. The cleanliness of the Suryapet town is apparent even to a casual visitor. It is devoid of huge garbage dumps overflowing from municipal dustbins, clogged drains or an unsavoury stench permeating from garbage dumped at undesignated locations, a site so very familiar in most towns in the country.

Suryapet might still remain a little-known small town, but the aforesaid effort has surely made Suryapet a better place to live in.

*(Data for this story has been provided by Commissioner, Suryapet Municipality, Suryapet, Andhra Pradesh)*

## ITC collaborates with NGO for Zero Waste Management

Indian Tobacco Corporation (ITC) Limited has started a successful segregation and composting initiative at its housing campus at Bhadrachalam, situated 300 kilometres from Hyderabad, Andhra Pradesh. This is one of the few successful examples of a corporate zero-waste initiative.

Prior to starting the zero waste initiative, the garbage (2.3 tons/annum) generated by approximately 850 residential units, bachelor hostels, guesthouse, club, etc, situated at the residential campus was being dumped at a designated landfill site within the ITC factory premises. Initiated in 2000, in collaboration with Sukuki-Exnora, the zero waste project promotes segregation of garbage at source. This is enabled by providing each household with dustbins, which has three compartments, one for dry waste (paper, plastics, etc), wet waste (vegetables, food waste, etc) and one for hazardous waste (including dry cells, fused bulbs, etc).

This segregated waste is collected by a



team of six 'street beautifiers', who are on the rolls of ITC. This designated team, through specially designed rickshaws, evacuates the garbage to the Zero Waste Management Centre. At the centre, a segregation team comprising of two employees further segregates the waste. The wet garbage is vermi-composted and the manure is used for the parks and gardens of the campus. The recyclables are sold and generate an income of about Rs. 6,000 per month. The hazardous waste is buried in concrete-lined safety disposal pits. With all the solid waste taken care of, the landfill site has now become redundant and efforts are being made to

reclaim the landfill site. ITC's solid waste management initiative was backed by an extensive public education programme wherein the residents of the campus were told about the benefits of waste segregation.

Besides demonstrating a corporate concern for the environment, this step has proven to be technically viable. Garbage becomes the source of manure for campus parks while the sale of recyclables yields revenues. Further, valuable land, which was earlier designated as a landfill is now available for alternative land use. Large corporate residential campuses, by adopting the zero waste model, can generate returns from garbage that can make landfill sites redundant. This, other than the monetary rewards, also boosts the image/brand equity of the company by demonstrating its commitment to environmental concerns.

*(The data for this story has been provided by Maintenance Officer, ITC Residential Campus, Bhadrachalam, Andhra Pradesh)*

*Tanya Sen Gupta*

## Hunger, Water, Survival: theme for a unique film festival

Toxics Link, in collaboration with India International Centre, organised *Quotes from the Earth*, a festival of films on the environment, at India International Centre, New Delhi from January 22-24, 2004.

The festival was an attempt to highlight the environmental challenges faced by people all over India, through the powerful medium of films, with a focus on Hunger, Water and Survival.

Most of us have come to understand the word environment as either meaning clean

or green or as a separate category which can be managed in isolation, without addressing its complex interlinkages. "We need to face the complex reality of the environmental challenges of our country and its people and films are an excellent way to do that", says Ravi Agarwal, Director, Toxics Link.

On January 21, at 6.30 pm, 50 to 60 people gathered at the India International Centre's Art Gallery, where the *Quotes from the Earth* film festival along with 'Audio Installation in a Visual Sauce', the media space designed by Pradip Saha, Designer, Photographer and Managing Editor of *Down to Earth* magazine was to be inaugurated by Attorney General Soli J. Sorabjee.

Mr Soli J. Sorabjee praised initiatives

like *Quotes from the Earth* and mentioned that the Government of India was reviewing and reframing the country's corpus of environmental laws. At the end of his keynote, Soli J. Sorabjee, along with Ravi Agarwal and Pradip Saha, lit the lamp symbolising the event's launch. Guests walked around the audio and video installation and interacted over a cup of tea and snacks.

On the morning of January 22, a small audience had gathered to hear Ravi Agarwal's introductory keynote and to view films on the subject of 'Water'. The award-winning documentary film 'Chaliyar... the final struggle', by P. Baburaj and C. Saratchandran, looked into the issue of industrial pollution, through the case of villagers fighting against a paper mill which

has been releasing toxic effluents in the river Chaliyar, Kerala, for the past 40 years, letting the river and its people die. The freshly released 'Hunting down water', by Sanjay Barnela and Vasant Saberwal, examined water distribution and its usage patterns in rural and urban India, while teaching the Indian urban middle-class a lesson on who is actually paying the price of their comfortable existence.

Other films focused on traditional water harvesting systems (Award-winning 'Marubhumi' by Amar Kanwar) and on the major issue of big dams and displacements of population in the Narmada Valley, and the resistance movement organised by the Narmada Bachao Andolan.

By the time the panel discussion started, about 40 people were present in the auditorium to listen to Ramaswamy Iyer, former Union Water Resources Secretary, Chittaroopa (Sylvie) Palit of Narmada Bachao Andolan and Rohit Prajapati of Paryavaran Suraksha Samiti. Dr Sudhirendar Sharma, a former World Bank water expert, moderated the discussion.

In the evening, a captivated audience saw the beautiful long-length documentary film 'Sand and Water', by Bangladeshi filmmaker Shaheen Dill-Riaz; an encounter with a people who live on a group of tiny islands on the river Jamuna, in North Bangladesh, in spite of the harshness of this environment.

January 23 focused on the issue of 'Hunger' through films questioning food safety and food security. The impact of the heavy use of pesticides on Indian agriculture, particularly on small farmers and the threat represented by biotechnologies, was one crucial theme. This included films such as 'Seeds of Plenty, Seeds of Sorrow', by



*The panel discussion on 'Repression'.*



*The film festival, held at the India International Centre, was part of its Annual Day celebrations.*

Manjira Datta, which had been made for the Rio Conference, 1992; and the award-winning 'Harvesting Hunger', by Krishnendu Bose.

The films also looked into the issues of genetically modified crops and traditionally sustainable agriculture ('Deconstructing Supper' by Canadian filmmaker Marianne Kaplan; 'Why are Warangal farmers angry with BT cotton?', 'Mobile biodiversity festival 2002', made by Dalit women farmers and filmmakers from the Deccan Development Society, Andhra Pradesh). Filmmaker Sagari Chhabra, in 'Hunger in the time of plenty', examined the reality of hunger in the country, at a time when millions of tons of grains are rotting in governmental storages.

In the afternoon, Harsh Mander, Director, ActionAid India and P.V. Satheesh, Director, Deccan Development Society, led the discussion on hunger issues.

The people who watched 'Do Bigha Zameen' in the evening, filmed by Bimal Roy in 1953, depicting the exploitation of small farmers, were shocked to discover that the situation has not changed much since then!

Films shown on January 24 focused on the issue of 'Survival' and 'Repression', and particularly on the impact of industrial projects on local communities and on the violent State's response to people's resistance to this 'occupation' of their land and the take-over of their natural resources

('Suits and Savages', by British filmmakers Zoe Young and Dylan Howitt; 'The Turtle People', by Surabhi Sharma; 'Development flows from the barrel of the gun' by Biju Toppo and Meghnath, multi award-winning 'Buddha weeps in Jadugoda', by Shriprakash, and so on).

Amar Kanwar, independent filmmaker, moderated the discussion on repression, which had four speakers: Shekhar Singh, Honorary Director, Centre for Equity Studies and representative of the National Campaign for the People's Right to Information, Anand Mazgaonkar, Gujarat-based activist from Paryavaran Suraksha Samiti, Sudhir Pattnaik, Chairman of the Orissa-based Independent Media and Meghnath, filmmaker and social activist from Akhra, a Jharkhand-based organisation.

Baraka, by Ron Fricke, offered a breathing space to the audience through its stunning images of our world, in its diversity and various levels of sanity. It was a welcomed space after a very intense day of screenings and discussion denouncing injustice, rights' violations and state repression.

The public's reaction to the festival was very encouraging. People praised the relevance of the films, the function and the importance of giving space to such issues. Moreover, many groups and individuals expressed their interest in holding the film festival in other parts of the country.

*Aurelie de Lalande*

## UPDATES

### ASBESTOS UPDATE

#### White asbestos merchants subvert government's stance

**M**inister for Health and Safety, UK, Nick Brown, signed a Statutory Instrument on October 31, 2002 saying: "Asbestos is the most serious occupational health problem – in terms of fatal disease – that the country faces, and it results in much human suffering and misery. These regulations will do much to prevent exposure today, and illness and death in the future."

2003 saw the global movement against asbestos gaining ground. The latest countries to ban asbestos are Japan and Australia. Japan's Ministry of Health, Labour and Welfare announced that asbestos would not be manufactured, imported, transferred, provided or used by the country starting October 1, 2004. Australia has banned all new uses of asbestos and materials containing asbestos, from December 31, 2003.

#### The Indian situation

In India, however, it's a different story altogether. White asbestos continues to be used extensively, although other kinds of asbestos such as blue and brown asbestos are banned. Even as the demand for a global ban on all forms of asbestos was made at the World Social Forum, Mumbai in January 2004, the Maharashtra government pursues its request to the Union Rural Development Ministry for permission to lay asbestos sheets under the Innovative Scheme for Rural Housing and Development.

Unlike Maharashtra's notorious request, Goa seems to be on the right track. It has recognised the carcinogenic effects of asbes-

tos and has passed directives against the use of asbestos sheets in low-income housing.

In India, white asbestos is used mainly for water pipes or as roofing sheets in the construction industry. Asbestos dust may be inhaled while drilling a hole, cutting a pipe, repairing, renovating or demolishing a building. Its effects are far-reaching, affecting everyone from the person mining it to the ultimate consumer. Clinical reports show that asbestosis, mesothelioma or lung cancer can show up even 25-40 years after exposure to asbestos.

On August 18, 2003, Union Minister for Health and Family Welfare, and Parliamentary Affairs, Sushma Swaraj, said in the Rajya Sabha: "Studies by the National Institute of Occupational Health, Ahmedabad, have shown that long-term exposure to any type of asbestos can lead to the development of asbestosis, lung cancer and mesothelioma."

Although this clearly implies that white asbestos is hazardous, the Indian government representatives, astonishingly, objected to the extension of prior informed consent to cover white asbestos as a substance subject to trade control, at the Rotterdam Prior Informed Consent (PIC) Convention in Geneva held between November 17-21, 2003. India joined Canada, which exports more than 95 per cent of all the asbestos it produces (most of it to India) to scuttle attempts to include it in the international list of chemicals under the Convention.

#### Alternatives and a national ban

There is no single product in day-to-day use at work, or at home, that needs to be made from asbestos. Still, over 3,000 workplace and home-based products contain this substance. Cellulose fibre, PVA fibre, clay, stone tiles and steel are all substitutes for asbestos. Although expensive at first, they work out cheaper in the long run because of their long life.

If the Indian government is concerned about the health of its citizens it must approve alternatives to asbestos, especially for roofing. To begin with, the Ministry of Industry must put back asbestos under the list of industries requiring compulsory licensing and subsequently pursue a plan to ban it. A campaign should also be launched to make all government buildings asbestos-free.

Gopal Krishna

### WTE UPDATE

#### CDM being used to promote burn technologies in South Asia

**T**he South Asian Forum on the Clean Development Mechanism (CDM) was organised by Tata Energy Research Institute (TERI) with the World Bank and International Emissions Trading Association from February 2-4, 2004 in New Delhi. The Forum was sponsored by the World Business Council for Sustainable Development (WBCSD), Canada's CDM & JI Office, the Japan Bank for International Cooperation (JBIC), SGS, and the Asian Development Bank (ADB).

CDM is mentioned in Article 12 of the Kyoto Protocol which deals with climate change. Climate change refers to a statistically significant variation in either the mean state of the climate or in its variability, persisting for an extended period due to increasing emissions of greenhouse gases such as carbon dioxide, methane and chlorofluorocarbons. As the earth's surface temperature increases, weather patterns also change to the detriment of the ecological balance.

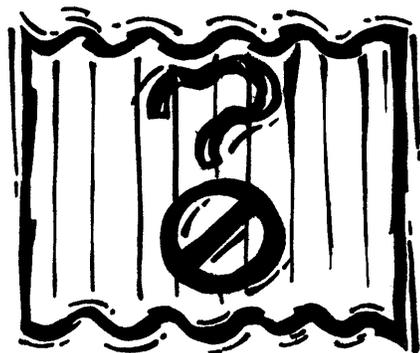
This implies severe, unforeseen weather changes resulting in all-round destruction in the form of the melting of polar ice caps, frequent storms, floods, and expansion of seawater resulting in the inundation of low-lying areas and islands.

CDM enables developing countries to participate in joint Greenhouse Gas (GHG) mitigation projects. Under this Protocol, Annex I countries (developed countries and economies in transition) are required to reduce GHG emissions to below their 1990 levels.

Unfortunately, CDM is being used to promote non-renewable technologies as renewable under the influence of the World Bank Group and the Waste Industry, which have vested corporate interests and are unmindful of the severe negative effects.

Resource Incineration Projects (referred to as Waste to Energy) are being pushed as a Renewable Energy Technology (RET) under the CDM. If this trend is allowed to continue, it will be a setback to the anti-incineration campaign worldwide.

Gopal Krishna



## MEDWASTE UPDATE

### Unsafe injections in India

A report on injection practices in India, submitted to the Ministry of Health in February, shows that two-thirds of the injections (around 65%) used in medical practices are unsafe.

In other words the country may be looking at 20,00,000 new Hepatitis B cases, 4,00,000 new Hepatitis C cases and 30,000 new HIV-positive cases every year.

The report was prepared by the Indian branch of InCLEN, an international organization, and was sponsored by the World Bank. The Clinical Epidemiology Unit of AIIMS and the Ministry of Health and Family Welfare were partners in the study.

The consequences are especially serious for India as the magnitude of injection administration is very high in the country: an average of three injections per person per year. It is highest in the below one year age group (5.8), mostly vaccinations, and a little less above one years of age (around 2.8).

According to the Health Ministry, the study had four main aims: to assess the frequency of injections in India; to determine what proportion was unsafe; what proportion was not required; and what determined the use of injections in the country. "The methodology used was a population-based survey and a health facilities-based survey", said an official. Unsafe injections were

judged on both major and minor criterion set by the government.

The major criteria included the use of opened/used syringes and needles, injections given over clothes, needles wiped with a swab, needles touching any surface before use, or use of one syringe needle for more than one patient.

#### Findings of the study

▲ About 23.8 per cent of the injections administered were unsafe due to 'questionable sterility' while re-use of injection syringes was placed second at 16.2 per cent of the cases. But in most cases (50.7), the danger crept in from wrong injection habits.

▲ Government hospitals (68.6 per cent) and immunisation clinics (73.9 per cent) are more likely to be unsafe. But the private facilities are only a little better, at 59.7 per cent.

▲ Glass syringes (81.1 per cent) are more unsafe than plastic ones.

▲ In government hospitals, 95.1 per cent of the injections are given by pharmacists or nurses, health workers or compounders, 6.4 per cent by helper trainees or assistants, and only 8.2 per cent by doctors or prescribers. In private hospitals, however, 61 per cent of the injections are given by doctors.

Based on the study findings, an explanation was demanded in the Parliament from the Ministry of Health & Family Welfare on the remedial action being taken by the government.

The Minister of State replied that creation of awareness in respect of proper and scientific use and disposal of syringes is an on-going process and that the government has initiated steps like inclusion of use of sterilised syringes and needles in all awareness campaigns of the National AIDS Control Programme.

Needle cutters are being supplied to various government hospitals through State AIDS Control Societies. As per the minister, pressure cooker sterilisers as well as assistance to procure fuel is being provided to all government health facilities. The minister also said that the government is actively considering introduction of auto-disable syringes for the immunisation programme in a phased manner.

*Ratna Singh*

## MSW UPDATE

### Look out for these bins

Municipal Solid Waste (Management and Handling) Rules, 2000, which were to be implemented from January 1, 2004 have finally been initiated in Delhi. The MCD has placed two coloured bins at common market places. Green bins are meant for organic waste, while blue bins are meant for inorganic (recyclable) waste. The need of the hour is to raise awareness amongst the people about waste segregation at source, its importance and its long-term implications.

### Work initiated without government help

The Musiri town *panchayat* in Tiruchy district will be the first semi-urban habitation in Tamil Nadu to undertake a sanitation programme to utilise existing solid and liquid waste to earn revenue for the local body.

A local NGO called SCOPE, headed by Mr N Subhuraman, has undertaken a three-year project in the area. The need was realised as the 4.5 acre dumping yard started overflowing with waste.

The project will undertake a Total Sanitation Programme (TSP) for the rural area. This will include the five-point programme of solid waste management, construction of individual toilets, construction of community toilets, waste water management and inculcation of personal hygiene habits.

The project has received the full support of local councillors. The residents are willing to extend their cooperation and are also ready to pay a fee of Rs 30 a month. Waste collectors were imparted training over a two-day period during which they studied best practices in Vellore.

*Indrajeet Rai*



*Immunisation drives lead to a large quantity of biomedical waste being generated.*

## Does India need to use more plastics?

According to an article published by Srinjoy Chowdhury in *The Statesman*, New Delhi, February 9, 2004, the Chemical and Fertilizers Ministry is setting up a committee to find ways for enhanced use of plastic in the construction industry. As per the government's plan:

- ▲ An expert committee will be set up to promote the use of plastics in the construction industry.
- ▲ A Plastic Development Council will be constituted at the national level. It is supposed to administer the Plastic Technology Development Fund.



Ragpickers segregating plastic waste.

The plan was born in response to the report of a government task force which found that India's per capita use of polymers is very low in comparison to the developed countries, even China. For the record, at present India's per capita use of plastics is 3.6 kg, whereas in China and the rest of the world it is 16.4 kg and 24.6 kg respectively. In order to catch up with the world, the government, in its wisdom, plans to increase our per capita use of plastics to 12 kg by 2010.

Construction has been the fastest growing sector in India during the 1990s and is expected to continue to be so in this decade as well. The construction industry is therefore the perfect sector to promote the guaranteed use of plastics in India. The health hazards of working in the construction industry are well-documented. Now the workers will be exposed to newer health hazards.

*Indrajeet Rai*

## Rotterdam Convention on chemicals comes into force

An international treaty that will help developing countries like India avoid being dumped with hazardous chemicals or pesticides has come into effect.

This treaty will particularly help to check trade of "many pesticides that have been banned or restricted in industrialised countries but are still being marketed in developing countries", a UN agency said.

Known as the Rotterdam Convention, "the treaty's requirements for labelling and providing buyers with information on potential health and environmental effects will promote the safer use of chemicals", according to the UN Food and Agriculture Organisation (FAO).

The treaty, which came into effect on February 24, 2004, "will enable developing countries to avoid many of the mistakes made in richer countries, where the misuse of chemicals and pesticides has too often

harmed or killed people and damaged the environment", said Klaus Töpfer, Executive Director of the UN Environment Programme (UNEP).

The Convention has been implemented on a voluntary basis since September 1998 in the form of the interim Prior Informed Consent (PIC) procedure. India is part of the PIC Asia region but is not among 73 signatories to the Convention.

The Convention lists 22 hazardous pesticides and five chemicals. As many as 15 more pesticides and industrial chemicals, identified during the interim PIC procedure, are flagged for inclusion at the first meeting of the Conference of the Parties to the convention in Geneva in September 20-24, 2004.

These include a range of highly toxic pesticides that are being traded globally such as parathion and monocrotophos, as well as five additional forms of asbestos, including chrysotile asbestos, which accounts for over 90 percent of asbestos used and traded.

*Papiya Sarkar*

## Public smokers watch out!

According to WHO findings tobacco kills almost five million people each year. If the present trend continues, it is estimated to kill 10 million people a year by 2020. The most alarming fact is that about 70 percent of these deaths will occur in developing countries.

The Bellagio statement on tobacco and sustainable development emphasises that "in the developing world tobacco poses a major challenge, not just to health, but also to social and economic development and to environmental sustainability."

In May 2003, the member countries of the World Health Organization adopted a historic tobacco control treaty, the Framework Convention on Tobacco Control (FCTC), which has the potential to reduce this terrible toll.

The Central Health Ministry ratified WHO's FCTC on February 5, 2004. With this ratification it will become legally binding for the Central Government as well as the State Governments to make laws against tobacco use, trade and advertisement. It will become compulsory to abide by the guidelines of the FCTC and all other legislations and already existing laws regard-



ing tobacco use in the country laws will have to conform to it.

The State Assembly passed an Act which bans smoking in public places on March 10, 2003. Soon after that, on April 9, the Parliament passed a much more comprehensive Act regulating all use, trade and advertisement of tobacco products. However, rules for executing either of the Acts have still not been announced.

The recent heartening news is that the Cigarettes and Other Tobacco Products Act will come into effect from May 1, 2004. According to the Health Minister, Sushma Swaraj, the Act will enforce a total ban on tobacco advertisements (including surrogate advertisements), smoking in public places and selling cigarettes to children below 18 years.

*Papiya Sarkar*

## News from Chennai

### ▲ Fly ash in bricks

*The Hindu*, January 30, 2004: Following an order passed by the Union Ministry of Environment and Forests, it is now mandatory for clay brick, tile and block manufacturing units within a 100 kilometre radius of a thermal power plant to mix at least 25 per cent ash by weight with the clay in the manufacturing process. The order comes into force immediately for units within a 50 kilometre radius of thermal power plants.



A fly ash brick manufacturing unit.

### ▲ Ban the burn

*The New Indian Express*, January 1, 2004: The Chennai High Court has ruled that only old wood and cow dung cakes should be allowed to be burnt during Bhogi festival. This was a result of a public interest petition from Exnora seeking a ban on burning of tyres, plastics, clothes and oil waste on Bhogi day.

### ▲ Chennai Corporation pulled up

*The New Indian Express*, January 14, 2004: Tamil Nadu Pollution Control Board pulled up Chennai Corporation by issuing a show cause notice for not implementing the Municipal Solid Waste Management Rules, 2000.

### ▲ Plastic wastes to eco-friendly mats

*The New Indian Express*, January 5, 2004: Plastic wastes collected from a tourist spot near Coimbatore are washed, dried, and woven by tribal women into mats, carpets and bags. This program is part of the Environmental Youth Enterprises of Centre for Environment Education.

### ▲ Eco-city

*The Financial Express*, January 11, 2004: For the first time in the country, an environment management plan is to be implemented for a town in Kanchipuram.

## RESOURCES

### GREENPEACE HIL REPORT

Environmental pollution from industrial effluents is a common occurrence the world over. It is the price one has to pay at the altar of so-called progress and development.

In 1999, Greenpeace conducted a survey of pollution related with the Hindustan Insecticides Ltd (HIL) factory. It documented severe contamination of nearby creeks with organochlorine pollutants discharged by HIL. A further study was conducted in 2002, to see status of the environmental pollution. Samples were analysed at the Greenpeace Research Laboratories at the University of Exeter, UK. Sediments contained between 20 and 37 identifiable organochlorines as well as numerous hydrocarbons.

In addition to the organic pollutants, concentrations of metallic elements (mercury, copper and zinc) were also found. The study reveals that all these metals are also entering the Periyar River via the creeks. Apart from HIL, at least three of the neighbouring industrial plants might be discharging these metallic elements.

This study throws light on the serious pollution of the creeks of the island of Eloor with toxic and persistent organic and inorganic compounds. It is feared that many of these contaminants will enter the food chain and may contaminate locally produced food. The study suggests that to improve the situation, the Indian government needs to phase out DDT production and put in place measures to eliminate the sources of the other pollutants.

*Papiya Sarkar*

### 'QUOTES FROM THE EARTH' FILM FESTIVAL

It was heartening to get requests for the film festival package even as the festival was being screened.

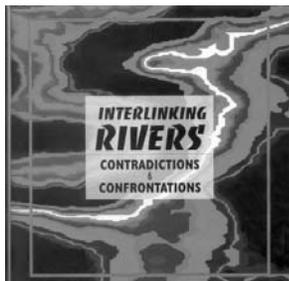
The film festival package can be borrowed for the organisation of similar events all over the country. The organising institution will have to cover the courier costs and provide a nominal safety deposit.

The following films are available as a film-festival package or individually as part of the Toxics Link film library inter-loan service:

- ▲ *Marubhumi*, Amar Kanwar, Hindi with English subtitles, 52 minutes, 1995
  - ▲ *Hunting down water*, Sanjay Barnela and Vasant Saberwal, English, 32 minutes, 2003
  - ▲ *Rainwater harvesting spot*, (Public service advertisement), Nandita Das and Amartya Sen, 1 minute and 30 seconds, 2003
  - ▲ *Chaliyar, the final struggle*, P Baburaj and C Saratchandran, English/Malayalam, 31 minutes, 1999
  - ▲ *A valley refuses to die*, K P Sasi, English, 41 minutes, 1989
  - ▲ *Words on water*, Sanjay Kak, English, 85 minutes, 2002
  - ▲ *Seeds of plenty, seeds of sorrow*, Manjira Datta, 53 minutes, 1992
  - ▲ *Why are Warangal farmers angry with Bt cotton?* DDS Community Media Trust, Telugu/English, 24 minutes, 2003,
  - ▲ *Mobile biodiversity festival 2002*, Vijendra Patil and P V Satheesh, Telugu/English, 13 minutes, 2002
  - ▲ *Meals ready*, Surajit Sarkar, Vani Subramanian, English/Tamil, 146 minutes, 1996
  - ▲ *Harvesting hunger*, Krishnendu Bose, English, 53 minutes, 2000
  - ▲ *Hunger in the time of plenty*, Sagari Chhabra, English, 30 minutes, 2003
  - ▲ *Suits and savages – Why the World Bank won't save the world*, Dylan Howitt, Zoe Young, 2000, 38 minutes, English.
  - ▲ *Aamaakaar – the turtle people*, Surabhi Sharma, English, 76 minutes, 2002
  - ▲ *Voices from Baliapal*, Ranjan Palit and Vasudha Joshi, Hindi, 43 minutes, 1984
  - ▲ *Buddha weeps in Jadugoda*, Shri Prakash, English/Hindi, 55 minutes, 1999
  - ▲ *The many faces of madness*, Amar Kanwar, English/Hindi, 18 minutes, 2000
  - ▲ *Development flows through the barrel of the gun*, Meghnath and Biju Toppo, Hindi/English, 56 minutes, 2003.
- For more information regarding the 'Quotes from the Earth' film festival travelling package, please write to Ruchita Khurana, at [ruchita@toxicslink.org](mailto:ruchita@toxicslink.org).

You can also view details of the films at [www.toxicslink.org/earthquotes/](http://www.toxicslink.org/earthquotes/)

## INTERLINKING RIVERS: CONTRADICTIONS & CONFRONTATIONS



After the world's worst industrial disaster, India, it seems, now wishes to break its own record of man-made calamities through the interlinking of rivers.

The proposed interlinking of rivers project seeks to teach the world what not to do with one's river systems. One must be warned that that rewriting geography is not the same as rewriting history, which the present ruling establishment has initiated.

Unlike all civil society movements in the past, this book captures the spirit and essence of the debate underway as a preemptive strategy to seek democratic accountability from the Indian Government. The title of the book, *Interlinking Rivers: Contradictions & Confrontations*, is an attempt by the civil society to counter the misinformation in the corporate controlled media on the issue.

The debate started out of the amazement at the incorrect news reports about the citizen's viewpoint, which appeared in the newspapers following the Civil Society Dialogue in February 2003 in New Delhi.

Thankfully, there has been no progress so far on the proposed mega-initiative of the Government of India but a group of about 1,000 individuals and organisations have come together out of a deep concern for the ecological threat. This unprecedented debate has made a significant contribution in shaping and influencing public opinion since March 2003. The participants in the discussion are citizens of India, residents of South Asia and concerned individuals from all over the world. They can be contacted at [riverlink@yahoogroups.com](mailto:riverlink@yahoogroups.com) to seek answers to almost all questions concerned with the proposals aimed at replumbing the planet.

*Ratna Singh*

## FORUM

### Saving the Brahmani river from corporates

Presently, the river Brahmani – one of the four perennial rivers of the country – is being systematically throttled by overuse.

A river's water is used in many ways: as a source of water for drinking, bathing and for other day to-day uses; for pisciculture, irrigation; for running industries as well as draining industrial effluents; as a supply of water for urban bodies, power generation, etc. A river is a common resource. Many are its users and multi-faceted are its uses. Among the users of a river are the villagers living on its bank, fishermen, farmers, civic bodies, industrial houses, power generation corporations, and many others.

Some of the uses of the river are in contradiction with each other. But to regulate this there is the unwritten principle of respecting the rights of other users as the precondition for using any such common property resource.

The benign Brahmani river, on the other hand, has become everybody's property, but no body takes care of it. Right from Vedavyas, till its confluence, the river is used and misused by people and industrial houses alike.

At Panposh, good quality water is drawn for the Rourkela Steel Plant, the steel township and the civil township. In return, Brahmani receives industrial effluents of the steel plant and the sewer of the civil township.

Immediately after the discharge of effluents and sewers into the river at Rourkela the water quality turns in to D-class water which is only fit for fish and wildlife propagation.

By the time the water reaches Bonei, 65 km downstream, the river is able to purify the water to a great extent (partially due to natural processes and partly because of the huge quality of water stored in the Rengali reservoir). The water quality improves to C-class, which can be used as a drinking water source with conventional treatment followed by disinfection.

But, this lasts for a very small stretch of the river – between the reservoirs Rengali and Samal. At Samal, Brahmani is fed with

the township sewer of Talcher Super Thermal Power Plant (TSTPP). Presently the TSTPP township is discharging its waste through the rivulet Tikira – which drains in to the Samal barrage. As a result of this sewer the water quality of Samal barrage is deteriorating. Downstream from Samal barrage, at Kamalang – the confluence point of river Nandira and Brahmani – the mighty industries and mines of Angul-Talcher area convert the water of river Brahmani in to D-class again.

One wonders if the water quality downstream of Kamalang can be classified as D-class as fishes are not able to survive in the water here.

Nandira is the name of a dead river – killed by the mighty industries and mines of Angul-Talcher area and converted in to a huge industrial drain. And Brahmani is one of the most polluted rivers of the country. The way things are proceeding, soon Tikira will also go the way of river Nandira. As Nandira drains into Brahmani, eventually both rivers will rot.

We have reasons to believe that this state would be of great benefit to the industrial houses of the area.

Earlier only a few stretches of the river were polluted (degraded to D-class), but after the NALCO's ash-pond tragedy the whole stretch of the river downstream from Kamalang has been polluted. The villagers are not able to use the water for drinking, bathing and other day-to-day uses, fishermen can not fish, the farmers have suffered because of the failure of irrigation points. The whole riverbed of Brahmani is silted up with fly-ash deposits. Now she is not useful to any user other than the industries draining out its effluents into it. And for this criminal act, have NALCO authorities apologised to the people of Orissa? They have maimed the river and continue to do so.

Brahmani, the lifeline of millions, is deteriorating at a rapid rate. This deterioration is due to the failure of a few, powerful users of this river to respect the principle of using a Common Property Resource (CPR). Among all the users it is the corporate bodies who have failed to behave properly by respecting the basic principles of using a CPR.

*Continued on page 12*



# FACT FILE

## Reality check for Indians

All Indian citizens are aware that their environment is degrading gradually and steadily. This knowledge, however, has become so familiar that we have become immune to it. In order to stir us out of our complacency let's take a look at some awakening statistics:

- ▲ As against the requirement of a 33% forest cover, only a little over 10% of India is covered by forests.
- ▲ India's forests are among the least productive in Asia: their average annual productivity of less than 1 cu m per hectare being about a fourth of the Asian average.
- ▲ India has among the lowest per capita availability of forests in the world, less than 0.1 hectare per head.
- ▲ The annual loss of top soil, by erosion, is estimated to be over 6,000 million tones.
- ▲ The area prone to flooding has more than tripled in the last forty years, from 19 million hectares to over 60 million hectares. Ironically, nearly half the districts in India have suffered from both floods and droughts.
- ▲ Recent data suggests that a third of the entire riverine length in the country (about 6,000 kms) has moderate to severe pollution.



- ▲ According to the Central Pollution Control Board, over 5 million litres of liquid effluents a day flow untreated from polluting industries into our water bodies. Similarly, 17 million litres of untreated liquid effluents flow from urban areas into our water bodies every day.
- ▲ A World Bank study of 36 major cities in India estimates that, annually, there are over 40,000 premature deaths and nearly 2 crore cases of hospital admissions and sickness requiring medical treatment due to air pollution. The poorer inhabitants of these cities, given their lower standard of living, nutrition, and health, are more susceptible to negative health impacts from air pollution.

*Compiled by Annie Marie Prayas*

*Source: Towards a Social Charter for the Environment by Prof Shekhar Singh*

*Continued from page 11*

Industries claim to be the usherers of development. But, in the case of Brahmani, they have failed to demonstrate their educated ways.

Even state authorities, such as the State Pollution Control Board (SPCB) have failed miserably in performing their duties

with respect to the river Brahmani.

So what is the logical step forward? Now the stakeholders of Brahmani, other than those who have violated the common principles of using a CPR, will join forces to see to it that their rights are not violated.

**Sisir Tripathy**

*DAG, Angul*

## 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 Ruchita Khurana at [ruchita@toxicslink.org](mailto:ruchita@toxicslink.org). The films are available against a nominal security deposit. You can view details about the films at <http://www.toxicslink.org/earthquotes/>



## 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 [tdelhi@vsnl.com](mailto:tdelhi@vsnl.com)

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