TOXICS DISPATCH
A newsletter from Toxics *Link*
Number 13 *October 2001*

A landfill in the midst of Asola Forest

Thousands of tonnes of garbage and no place to dump. This may be the future scenario in Delhi where 6,000-7,000 tonnes of waste are generated every day. Delhi is fast running out of landfills. The three existing landfills, according to the Ministry of Environment and Forests and the Planning Department, Government of National Capital Territory of Delhi, will be full within two to three years. To tide over the situation and meet the projected demand – to dispose of 17,000 to 25,000 tonnes of waste per day in 2021 – a proposed plan will transform the 1,000-hectare Bhatti mines area into a landfill.

The area is a wildlife sanctuary; no activity, including constructing a landfill, can therefore be carried out in it. The area is also a part of the Ridge in Delhi – a culmination of the Aravali mountain range which, besides being ecologically fragile, constitutes a major water catchment area of Delhi. Urban centres like Delhi are fast losing their green spaces to concrete jungles and this proposed move will only add to this phenomenon. We need to have sustainable systems rather than the ones that offer short-term solutions such as the Bhatti mines landfill.

The fact is if Delhi's mismanaged waste is actually organised, the three existing landfills will be sufficient to cater to Delhi's needs. Of the total waste produced in Delhi, close to 60 per cent is organic and can be converted to compost that could be used in agriculture; 15 per cent of the waste is recyclable material; and the remaining 25 per cent is constituted of hor-

IN THIS ISSUE

MILESTONES

Over the past five years, since soon after the Ridge became a reserve forest, there have been continuous attempts to target it for development. Listed here are some of the major moves of concern:

- **1996-97: Army builds polo ground; taken to court.**
- **1997: DDA proposes Rs 10,000-crore project to build 13 five-star hotels on New Delhi Ridge; taken to Supreme Court. Project is scrapped in 2000.**
- **1998: Government proposes Rs 5,000-crore peripheral expressway through the Asola Sanctuary; two-year campaign by the NGO Forum for the NCR. Project put on hold.**
- **1998: Proposed bear sanctuary in the Asola Sanctuary. NGO forum opposes for two years on grounds of incorrect area and threat to Ridge. Scrapped in end-1999.**
- **1999: Delhi Vidyut Board proposes 220 KV high tension line through the Central Ridge with fire path. NGO Forum opposes and suggests alternatives. Project put on hold.**
- **2000: Proposal to denotify 5 ha of the Central Ridge for Dhaula Kuan flyover. NGO Forum opposes and proposes redesign of flyover. Accepted.**
- **2000-01: Proposed landfills on Bhatti mines after proposed denotification.**

ticultural and construction waste, like debris and sand, which is ground and can be re-used. Only a very small percentage of waste materials – which are either difficult to recycle or are non-recyclable such as tetrapacks, thermocol, wafer bags, etc – remains. The need of the hour is to develop mechanisms of waste minimisation, urge greater responsibility on the part of producers and consumers, and set up cleaner waste disposal systems.

FEATURES

MEDICAL WASTE

Emerging technology options

Untreated medical waste was recognised as a problem in the early 1970s. The immediate approach taken was 'out of sight, out of mind'. Incinerators, which burnt everything, gave a false sense of security and within a decade there were over 6,500 onsite installations in the US. But soon the problems of toxins such as dioxins and furans, which are carcinogenic, and disrupt the endocrine and immune systems, were evident. In 1997, the USEPA formulated strict pollution control norms for the incinerators – it was estimated that over 98 per cent of the incinerators would have to be shut down, as retrofitting the incinerators with pollution control devices would call for huge investments.

Alternatives to incinerators started gaining ground, and the need for environment-friendly technologies was acknowledged. The ones that emerged are non-burn technologies, broadly categorised as thermal, chemical, irradiative and biological.

Thermal technologies rely on heat to destroy pathogens; these include technologies such as autoclave, microwave, hydroclave and dry heat systems. Thermal processes are in use globally; there are about 25 installations of these technologies nationwide. Chemical processes use chemicals such as sodium hypochlorite, chlorine dioxide, peracetic acid and various others for disinfection of medical waste. Irradiation and biological processes using electron beams and enzymes, respectively, are still under development.

Srishti recently released a book published by Health Care Without Harm (an international coalition of NGOs working on medical waste management), titled *Non-Incineration Medical Waste Treatment Technologies* which talks about all these technologies in detail.

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Government, industry at loggerheads over plastic ban

Ubiquitous in its presence, the plastic carry bag has singlehandedly brought to centrestage the problems of the 'Plastic Age'. Though awareness of plastic perils have merely been restricted to the problems of the carry bag, the time is ripe for plastic to be considered in a larger context. And at least Tamil Nadu seems to have realised this need.

The Tamil Nadu Pollution Control Board (TNPCB) has mobilised a mass campaign against plastics, most evident in the billboards behind buses pronouncing various messages against plastics. Some messages outline the health hazards of plastics, some talk about dioxins and some offer information about consumption reduction, reuse and alternatives. Prompted by the TNPCB, the Chennai Corporation has passed a resolution not to use 'one-time-use plastic items'. The Board has also issued directives to marriage halls against using disposable plastic items.

Threatened by such a ban and further legislation against plastics, the industry has launched a counter campaign highlighting the goodness of plastics. It has also contested the restriction on one-time-use plastics in court. The Tamil Nadu Plastic Manufacturers' Association (TAPMA), has made some of the following statements:

- Manufacturing of plastics – no pollution to the environment.
- No release of dioxins during manufacture of plastic.
- Usage of plastic products – no health hazard at all.

However, research worldwide has proven all these claims to be false; studies clearly reveal that the production, use, disposal and recycling of plastics negatively impact the environment and human health.

Fact 1 Enormous quantitites of hazardous substances are used in the manufacture of most plastics. These cause occupational and public health problems, as well as environmental damage through toxic releases.

Fact 2 Manufacture and burning of chlorinated plastics such as PVC has proven to be a source of dioxin release into the environment.

Fact 3 Consumers are at risk of exposure to toxic chemicals while using some plastic products, because some chemicals, such as phthalates (added as softeners) and heavy metals, may migrate from the plastic packaging to the foods they contain.

Fact 4 No plastic is 100 per cent recyclable.

The TNPCB is not only calling for a ban on one-time-use plastic but also advocating principles of Extended Producer Responsibility and waste minimisation strategies – a more holistic approach to address the plastics issue.

UPDATES

WASTE WORKSHOP

Delhi's municipal solid waste – legislation and future action

Toxics Link and Srishti, along with the Central Pollution Control Board (CPCB), had organised a one-day workshop on managing municipal waste in Delhi entitled ***'Managing Delhi's municipal waste: Legislation and future action'***, to discuss the new Municipal Solid Waste Rules, 2000, their implementation and possible bottlenecks.

The major recommendations were:

1. Interface between government, NGOs and communities: Waste management is also a social problem and, for any holistic solution, it is crucial to involve all the stakeholders. To evolve any action plan, it will be necessary to involve related government agencies, NGOs and resident welfare associations, right from the inception of any solid waste management strategy.

2. Privatisation of technical option for waste processing and disposal: The municipality should be responsible for the collection, segregation, storage and transportation of waste. But technical issues like the processing and disposal of garbage can be handled by private agencies using appropriate technologies only.

3. MCD and NDMC personnel to visit Mumbai to observe the functioning of ALMs: A strategy on the lines of Advanced Locality Management (ALM), which is a collaborative initiative between the Bombay Municipal Corporation and citizens, should be adopted for Delhi too. But there is a need to understand the system properly in order to operate efficiently; guidelines should be created on what exactly needs to be done. The NDMC and MCD officials should visit Mumbai to observe and understand the functioning of ALMs. Such an initiative can start in 12 wards and 15 circles of the NDMC.

4. Prototype proposals from various private agencies and NGOs for solid waste management: Resolutions should be adopted regarding proposals from NGOs to get a place in the city action plan. The MCD has agreed to issue a public notice inviting participation and proceed on the lines of ALMs in Mumbai.

5. Mechanisation of solid waste management: Municipal solid waste management systems should be mechanised. An efficient transport system should be maintained. The present system of covering trucks with wet jute sacks should not be allowed; special trucks should be deployed to transport garbage. The current *dhaloas* should be redesigned in a way which is compatible with any mechanised garbage collection system.

6. Subsidy on compost: The compost from MSW should be subsidised and incentives should be given to make it viable in the market. The CPCB should make norms for compost quality and review the existing compost plants.

7. Formation of a core group consisting of various government agencies, NGOs and community groups: A core group or committee – which has to be authorised by the MCD, NDMC, DPCC, CPCB and NGOs – should be formed to monitor implementation. The DPCC chairperson should head the group and monitor implementation, as in the Bhurelal committee. The MCD and NDMC should make regular presentations, on a quarterly basis, on progress in work.

8. Time-bound solutions for complaints related to MSW management

Dousing the fire: Asian activists meet

Waste Not Asia (WNA), the Asian regional arm of the Global Alliance for Incinerator Alternatives/Global Anti-Incinerator Alliance (GAIA), held its second Annual Conference in Taipei, Taiwan, from July 26 to 30. There were about 70 local and overseas participants from Cambodia, China, Guam, India, Indonesia, Japan, Malaysia, Nepal, New Zealand, Pakistan, the Philippines, South Korea, Taiwan, Thailand, the USA and Vietnam.

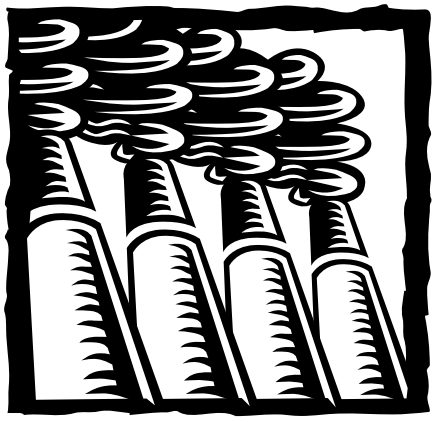
The objectives of the meeting were to:

❶ Inform and educate the participants on current and emerging waste management issues affecting the peoples and nations of the region.

❷ Share experiences and build skills to help advance our common mission, specifically on how to stop waste incineration and promote non-burn and ecological alternatives.

❸ Develop strategies and plans of action to strengthen the WNA, in particular, and the anti-incineration movement in general.

The five-day conference proved most valuable in providing activists across the region time and space to listen to and learn from each other, and to strengthen linkages regionally and sub-regionally. It was a big boost to the local anti-incineration movement as its members strive to shut down more than 35 waste burners all over Taiwan.



Special lectures at the meeting

▲ Zero waste initiatives in New Zealand

Warren Snow, special speaker from Zero Waste New Zealand Trust encouraged participants to create sustainable communities by adopting Zero Waste as their vision and target. He underscored the need for a complete redesign of the industrial system to create a closed-loop, materials-efficient society, and cited specific examples indicating that Zero Waste is gaining more and more adherents from different quarters, including big business. He reported that 40 per cent of the municipalities in New Zealand have adopted targets of Zero Waste by 2015. Mr Snow sees Zero Waste as a powerful counter-force against globalisation. "When materials start to circulate, local opportunities are created and start to reverse the forces of globalisation, which until now have increasingly marginalised small distant rural communities and certain sectors of the society." He concluded by stating the three core principles for a Zero Waste strategy:

❶ End cheap waste disposal. Charge the true cost of disposal to the waste generator.

❷ Design waste out of the system.

❸ Engage the people and help them to believe that it is possible to move toward the Zero Waste target.

▲ The Economics of Waste Incineration: A Case Study from Japan

Ayako Sekine of Greenpeace Japan talked about a study commissioned by Greenpeace to answer the following questions:

❶ How much money is invested to burn household waste in Japan?

❷ What are the true costs of the various technological attempts to control dioxin emission from waste incineration plants?; and

❸ Are these expenditures reasonable for establishing a resource-sustainable society and for keeping the environment free from hazardous chemical substances?

The findings of the study revealed that the total expenditure for the construction and improvement (dioxin control devices) of waste incineration plants in Japan has cost the tax payers between ¥600 billion to ¥800 billion per year (approximately US$ 5-7 billion) over the last five years. Since 1998, the total money spent for facility improvements to restrain dioxin emission has reached one-third of the grand total expenditures of waste incineration plants. Under the pretext of dioxin control, the Japanese government has been promoting larger and more 'state-of-the-art' waste incinerators, which is contrary to the goal of building a sustainable and resource recycling society. Greenpeace Japan has put forward the following demands in connection with this study:

■ That the central government and the local municipalities set out a clear policy and action plan to halt the expansion of waste incineration in the very short term and ultimately phase out this dirty technology.

■ That the national and local governments utilise the taxpayers' money to promote waste reduction and recycling, and not for subsidising incineration projects or for redeeming local loans.

▲ Poison PCs: The Growing Environmental Problem

Leslie Byster of the Silicon Valley Toxics Coalition talked about the downside of the high-tech revolution and its impact on people's health and the environment. In particular, she cited the rapid product obsolescence of personal computers (PCs) that leads to escalating piles of e-waste in the USA and other industrialised countries.

PCs contain over 1,000 materials, many of which are highly hazardous such as lead, cadmium, mercury, hexavalent chromium, PVC and brominated flame-retardants. If dumped in

The conference enhanced GAIA's efforts to develop sub-regional nodes towards a more decentralised implementation of efforts that will complement and bolster anti-incineration initiatives worldwide. The participants resolved to urge their governments to ratify the four global toxics treaties (also known as the 'Package of Four') – the Basel Convention, the Rotterdam Convention, the London Convention and the Stockholm Convention. They also agreed to facilitate training activities on clean production to underpin members' advocacy for real alternatives versus the waste crisis. Organisationally, the participants agreed to work to extend the WNA platform by actively seeking new members from all parts of the region.

landfills, these toxic substances will seep out, contaminating soil and groundwater and posing a threat to people and other living organisms. If incinerated, it will increase the concentration of heavy metals in the slag, fly ash, flue gas and filter cake and generate toxic emissions such as dioxins.

Ms Byster identified open air burning of plastics to recover copper and other metals, a common practice in Asian countries, as most dangerous. The toxic fall-out from open air burning affects both the local environment and the broader global air currents.

She also pointed out that recycling e-waste causes many health hazards to the workers, and that the export of e-scrap from developed to developing countries is creating major environmental damage in the importing countries.

Ms Byster introduced the 'Electronics: Take It Back (ETIB) Campaign' that supports the guiding principle called Extended Producer Responsibility (EPR) for post-consumer e-waste. The objective of EPR is to make brand name manufacturers financially responsible for their products when they become obsolete.

For more information, visit **www.svtc.org** *or write to* Leslie Byster (**lbyster@igc.org**).

India to sign Stockholm Treaty on Persistent Organic Pollutants (POPs)

In a multi-stakeholder meeting organised by the International POPs Elimination Network (IPEN), Toxics Link and Srishti, Dr Rajagopalan, Joint Secretary, Ministry of Environment and Forests (MoEF), and chief negotiator for India in the recent Stockholm Convention on Persistent Organic Pollutants (POPS), stated, "India is preparing to sign the Stockholm Convention and will do so shortly". This was the first time, since the treaty was adopted in May, that the Indian Government has given such a positive indication of taking a step that NGOs have been advocating.

The meeting, titled 'India and the POPs Treaty', was held in Delhi and was attended by government, industry, inter-government and non-governmental organisations. The objective of the meeting was to start a discussion about and create awareness of the POPs treaty in India and the role various stakeholders can play in adopting the treaty.

Major outcomes of the meeting

▲ First multi-stakeholder meeting on POPs

The meeting achieved its objective of bringing together stakeholders in one forum to discuss:

- the level of understanding on POPs in India;
- opportunities for participation in the treaty process and national strategy plans;
- the difficulties and hindrances in implementing the plans;
- the plans of inter-governmental agencies in supporting various enabling activities in India; and
- the role of non-governmental organisations in the treaty process.

▲ India's position on POPs treaty

It was clear that India would sign the treaty after confirming the operational procedures outlined by the Global Environment Facility. The two basic needs highlighted were the assessment of local benefits while phasing out hazardous chemicals and sustained funding for putting in place the alternatives. Sustainable funds for phasing out of chemicals have to come under the guidance of the Conference of Parties (CoP). According to Dr Rajagopalan, "signing the convention is necessary to show commitment and also to avail GEF funding, available only to the signatories".

▲ Partnerships and enabling activities

Government and inter-government agencies laid out some of the projects and plans to address the POPs issue:

- The Indian Toxicological Research Centre, Lucknow has been entrusted with the task of identifying new POP chemicals and suggesting alternative non-toxic molecules.
- The government is working with UNIDO to develop a proposal to avail GEF funding.
- The World Bank has started the Phase I process of developing a strategic framework with a Canadian Consultancy and CII. The main objective is to identify stakeholders and talk about problems, which not only includes POPs but also chlorine, and addresses safety issues of other chemicals.
- The MoEF to identify Best Available Technology (BAT) in cement, pulp and paper, secondary production of copper and aluminium, and iron and steel industries, and to reduce POP by-products, such as dioxins and furans.

▲ Policy and legislative changes

The meeting clearly identified the following needs:

- National Pesticides Policy which includes participation from various stakeholders and promotes rational pesticide use.
- Inter-ministerial pesticide steering committee for better coordination amongst various government agencies looking into pesticides issues.
- Chemical and food safety protocol.
- Enforcement of bans of POPs, chemicals and banned pesticides.

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Public Lecture Series on Environment and Health

Toxics Link has started a Public Lecture Series on Environment and Health. Dr V.P. Sharma, Consultant, WHO Roll Back Program and ex-Director, Malaria Research Centre, Government of India, delivered the first lecture.

The highlights of his talk included the following points:

1. DDT is completely useless for malaria control in India.
2. India has depended only on DDT for malaria control without developing a larger malaria control strategy.
3. DDT is not restricted to indoor spraying. It leaks out, there is mud re-plastering of walls culturally, and it is restricted to less than 30 per cent of surface areas.
4. *Anopheles culicifacies*, the vector mosquito species which causes the majority of malaria cases in the country, is resistant to DDT in over 80 per cent of the areas, in addition to multiple resistance.
5. DDT made in India is 50 per cent grade, and not up to WHO standards of 75 per cent technical grade.
6. After the USA, India is the single largest user of DDT, with over 0.5 million tonnes having been sprayed till date.
7. Despite the use of DDT, the Annual Parasite Index (API) has increased from 7 to over 60 in many areas.
8. The cost of DDT is rising every year, and is about Rs 10 per capita if the actual cost is taken into account. Bio-control methods cost less than Rs 3 per capita.
9. In Maharashtra, which has a population of greater than 90 million, the use of fish, impregnated bed nets and biological controls reduced the API from over 50 to less than 2.
10. Replacement by synthetic pyrethroids is not the answer.
11. The DDT body burden in India is very high.

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FACT FILE

Deodorants and anti-perspirants
A fragrance of ill health

In the hot summers, anti-perspirants and deodorants could be the best help in getting rid of excessive sweating and body odours. Available as liquid sprays, sticks, powders, roll-ons or creams, these products rely on different types of chemical reactions to achieve their purpose. Anti-perspirants reduce perspiration and body wetness caused by eccrine sweat glands (these glands regulate body temperature by adjusting the amount of sweat secretion and elimination of the body's waste products). This is achieved by either retarding the flow of eccrine sweat, causing blockages at the mouths of sweat gland ducts or by inflaming the skin around the pores, forcing them to close. Deodorants**,** on the other hand, remove body odour by killing the bacteria that breaks down the sweat from apocrine glands (which are controlled by the body's hormone system).

Deodorants and anti-perspirants are strong chemicals that may be a complex mixture of astringent salts, aerosols or some other ingredients in water or alcohol solution. Astringent salts such as aluminium chlorohydrate, aluminium phenosulphate, zirconium chlorhydrate, etc, are highly acidic in nature. Aluminium salts lead to health problems such as skin irritation which, in serious cases, could develop into contact dermatitis (a disease in which the skin turns red and develops an itchy or a painful rash). Elevated aluminium levels have been found in the brains of Alzheimer's patients. In addition, zirconium-based sprays can be carcinogenic if inhaled. Triclosan used in deodorants can cause liver damage through percutaneous absorption. Aerosol-based anti-perspirants can cause temporary loss of vision and conjunctivitis. Inhaling a high concentration of aerosol sprays leads to deposition of highly toxic gases such as butane and pentane, which can cause cardiac diseases.

Our body purges toxins in the form of perspiration. Anti-perspirants stop the body from releasing such toxins, which keep accumulating in the lymph nodes. Eventually, high concentrations of these toxins in an area can cause cell damage that may even lead to cancer.

Moreover, such chemicals should be avoided also because of their flammable nature and the health hazards they pose.

Avoid using such sprays by bathing frequently and wearing summer-friendly clothes instead.

Source:
INSIGHT
The consumer magazine, Vol 21 (1), Jan-Feb 2001

Delhi Master Plan amended to reinstate polluting units in city premises

In a recent decision taken by the Union Urban Development Ministry, the polluting category 'F' industrial units will be allowed to operate in the conforming (approved) industrial areas. Category F, as stated in the Delhi Master Plan (Annexure III), includes 70 to 80 polluting industries such as anesthesia gas plants, chemical manufacturing units, rubber units, PVC plants, polythene bags, refrigerators and air conditioners, zinc polishing units, dyeing and bleaching units, etc. Category 'F' units were classified in the Master Plan as Extensive Industries and were barred from operating in industrial areas, which made it mandatory for them to move out to the outskirts of the capital or to neighbouring states.

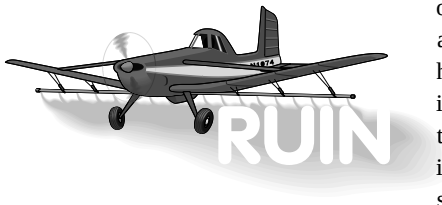
The decision to amend the Delhi Master Plan was taken through a gazette notification issued by the Union Urban Development Ministry in July 2001. This move has put a legal stamp on the large number of industrial units of the 'extensive' category, which had secretly been operating in the conforming zones.

With this decision, the Ministry of Urban Development has also removed the ceiling on maximum power load, land and trade, which further frees the industrial units to use any amount of power load as per their requirements.

An expert committee of the Delhi Government had identified 33 types of industries in category 'F' as polluting, after studying the general process involved in the manufacture. However, it is being insisted that these industries can be set up provided they fulfill the non-pollution criteria of the Delhi Pollution Control Committee.

Sources:
TOI, *New Delhi – 2 Aug 2001;*
The Asian Age, *New Delhi – 27 July 2001;* **http://www.hclinfinet.com**

The struggle continues – the curse of Endosulfan in Kerala



The Endosulfan Spray Protest Action Committee (ESPAC) has stated that the Plantation Corporation of Kerala (PCK) is trying to disown the toxic legacy that it has left in Kasargod and surrounding villages of Kerala, by aerially spraying the deadly pesticide Endosulfan for over 25 years.

The PCK's stand is based on a study done by the Frederick Institute of Plant Protection and Toxicology (FIPPAT), a study commissioned by the PCK itself. The FIPPAT study completely denies the presence of any Endosulfan residues in human blood samples, cow's milk, fish or water in the village.

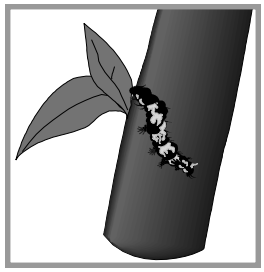
However, a study undertaken a few months ago by the Centre for Science and Environment (CSE), a Delhi based NGO, proved the "persistence and related health-effects of pesticide Endosulfan" aerially sprayed on the cashew plantations in this region.

Incidentally, the 1999 report of the All India Coordinated Research Project on Pesticides Residues, a study sponsored by the Indian Council of Agriculture Research, stated that out of 422 farm-gate vegetables tested for residue of endosulfan, 322 (79 percent) were found to be contaminated. The contamination ranged up to 18.63 mg/kg. The allowable Maximum Residue Levels of Endosulfan in food is 0.5 to 2 mg/kg. This being the case, it seems highly unlikely that no Endosulfan residue was detected in samples taken from an area that has been continuously exposed to the pesticide for more than 25 years.

Caterpillar menace in Bengal

A huge army of caterpillars have invaded three different villages – Gandharbapur, Khatuara and Garpara in North 24 Parganas district of West Bengal, attacking plants and animals, and even creeping inside houses. They are frequently spotted in wells and other water bodies, which the desperate villagers are now keeping covered. The scared villagers have stacked their homes with all kinds of pesticides to keep off these caterpillars but to no avail, since the caterpillars have developed resistance to most of the pesticides.

This is a classic case of the secondary pest outbreaks that happen when broad-spectrum chemicals kill many types of organisms including non-target organisms indiscriminately. Though it may be useful for controlling several pests at once, the flip side of using such chemicals is that insects that are normally not a problem in the cropping system suddenly become pests as their natural predators are killed by the chemicals. This often leads to the use of more potent chemicals that not only leads to environmental contamination but also to the development of resistance in insects.



Chemical control is not the only answer to the pest problem. Proper understanding and natural controls have to be adopted to combat the pest menace effectively.

Sources:
DH News Service, *HABRA (West Bengal), July 27, 2001*
http://www.cas.psu.edu/docs/casdept/ipm/history1.html

Hema Chemicals – a repeat offender on the toxics front

Hema Chemicals, situated in an industrial estate in Baroda, manufactures potassium and sodium bichromate, basic chromium sulphate, and other chromium-based chemicals. Chromium is used in alloys and metal plating, and its salts have wide applications in industry.

The manufacturing process of chromium-based chemicals involves roasting at high temperatures, accompanied by the generation of large quantities of toxic wastes. Bichromate is a known carcinogen. It can also lead to chronic rhinitis, chronic chemical pharyngitis, nasal perforation, perforation of the eardrum, deep and slow healing ulcers on the skin, kidney damage and lung cancer, among other things.

Hema Chemicals has two units, employing more than 120 workers. As many as 52 workers suffer from nasal perforation, 26 have dermatitis and 7 workers have died over the last two years. Paryavaran Suraksha Samiti (PSS), a voluntary group based in Gujarat, has constantly brought the following points to the notice of health and regulatory authorities:

- irreparable damage to workers' health
- deplorable working conditions inside the factory
- constant violations by the factory owners of environmental and other laws
- indiscriminate and criminal disposal of hazardous solid waste outside the factory premises – up to 73,000 tonnes of it.

The company has repeatedly violated laws, misrepresented facts to authorities to escape action, and used political influence. In the latest instance, a Gujarat Pollution Control Board order dated 3 August, for disconnection of power supply to the company was acted upon almost 15 days late, and then power was immediately restored after intervention by a minister in contravention of the regulatory agency's order. GPCB has recently ordered closure of the company, but due to the political clout of the company as evidenced in earlier instances, it may not be surprising if this order is vacated too.

PSS has been demanding:

- ▲ The clean-up and scientific disposal of the toxic waste dumped by the factory;
- ▲ Thorough health investigation of the workers;
- ▲ Detailed investigation of ground water sources to assess the damage caused;
- ▲ Making the company clean up the ground water;
- ▲ Full compensation to workers whose health has been damaged due to the working of the company; and
- ▲ Compensation to all people whose health has been damaged due to living on chrome-contaminated hazardous solid waste.

For PSS-related enquiries, write to:

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OBITUARY

Shri Banke Bihari Das, an eminent environmentalist and former finance minister of Orissa died in July 2001. Known for his efforts to save the dying Brahmni river from toxic industrial pollution, Shri Das left no stone unturned to have his voice heard and actively lobbied at all levels. We are deeply saddened by his demise and will always miss his guidance and support.

Padma Rajagopal, our new-found friend and supporter, died last month due to a massive asthma attack. A person of great spirit, strength and passion, Padma was an organic farmer and championed the cause of pesticides-free food. Toxics Link pays homage to Padma and will continue the mission that was close to her heart.

E-toxic listserve

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

Designed by Splash! Commuications, *e-mail* makeasplash@vsnl.net