



DDT – ‘the controversial POP’



In India the highly controversial pesticide DDT has permission to be produced only for vector (i.e. malarial) control. Though its use in agriculture is completely banned bitter allegations point out to a morbid truth. It is suspected that DDT produced in India is illegally routed to farmers for use in agriculture. A scientific survey released by Greenpeace, based on sampling in and around the Hindustan Insecticide Ltd factory, confirms the release into the environment of contaminants resulting from the production of DDT, highlighting that DDT is an environmental pollutant not only through its use, but also its production.¹

What is DDT?

DDT (dichloro-diphenyl-trichloroethane) is a deadly insecticide belonging to the class of chemicals known as organo-chlo-

¹<http://infochangeindia.org/200610106172/Other/Toxic-Tours/Toxic-Tours-IX-Doing-it-without-DDT.html>

²<http://www.indiaenvironmentportal.org.in/node/26350>

roethane (DDT).² The highest incidence of milk contamination was reported from Bihar, Uttar Pradesh and Andhra Pradesh. In AP, the BHC content in milk was found to be double the accepted daily intake (ADI). According to ICMR reports DDT residues were detected in 82 per cent of the milk

rines. As the first synthetic pesticide of the modern age it promised much, but ultimately created widespread concern as an environmental hazard. Prepared by Prof. Paul Muller, a Swiss chemist, in the year 1939 DDT became well-known during World War II when the United States Army used it to fight an epidemic of typhoid fever in Naples, Italy. DDT was used in the global efforts, supported by WHO, to eradicate malaria in the 1950s and 1960s. This campaign resulted in a significant reduction in malaria transmission in many parts of the world, and was probably instrumental in eradicating the disease from Europe and North America. Later, in 1999, the US National Academy of Sciences (NAS) stated “it is now well-established that DDT metabolite, DDE, causes egg shell thinning” and that the bald eagle population in the United States declined “primarily because of exposure to DDT and its metabolites”. Global concern over these findings, declining bird populations and contaminated foodstuffs led to widespread ban on DDT for agricultural purposes. DDT has a variety of health effects on microorganisms, invertebrates, fishes, birds, and mammals. In humans it causes reduced fertility, congenital birth defects, breast cancer, diabetes and damage to developing brains.

Hazardous Health Impacts

A number of food we intake daily contain high dosage of DDT. According to surveys conducted by Indian Council of Medical Research (ICMR) as much as 87 per cent of the milk samples collected from 12 states contained residues of pesticides such as benzenehexachloride (BHC)—technically called HCH and commercially known as gamaxine or linden—and dichlorodiphenyltrichlo-

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Chemicals on the Global Agenda

The month of May saw a plethora of activities on the chemicals front. At the Fourth Conference of Parties to the Stockholm Convention, 9 new chemicals were added to the existing 12 – dirty dozen, list, after a long science based process. These include Lindane, 2 commercial BFRs (Brominated Flame Retardants), and PFOS the widely used class of chemicals used in non-stick kitchenware besides a host of applications like semi conductors, medical devices, firefighting foams, metal plating etc. This was the first time new chemicals have been added to the Convention for reduction and final elimination, and is a historic step towards chemicals safety. All of these have known global health impacts.

However the listing is not without problems. Exemptions will allow chemicals like BFR to be continued to be used till 2030, and even recycled in Europe. Countries also claimed exemptions for all existing uses of PFOS, for example, and DDT continues to be used. Lindane is allowed for pharmaceutical use, even though safer alternatives are available. India led the front for exemptions, and blocked global cries for total bans, as has become common in recent times. That India protects industrial interests in such global negotiations rather than lead from the front for safer alternatives is obvious even to the casual observer. For example India has been aggressively opposing the inclusion of Endosulphan on the POPs list, or even of white asbestos on the Rotterdam Convention list which merely deals with Information sharing. On the other hand, a major country like the US has still not ratified the treaty.

A week later, also in Geneva, the high level meeting of the ICCM2, which is a UNEP based platform with over 160 Governments, NGOs, Industry etc. adopted resolutions to create global partnerships and processes on the issues of lead in paints, electronic waste, chemicals in products, and nanotechnology, the risks of which have not been documented enough., despite its increasing use.

Toxics Link along with the Intergovernmental Forum for Chemical Safety (IFCS), and the US Environmental Protection Agency proposed Lead in Paints as an emerging issue. A new report by Toxics Link, based on primary research, along with IPEN members, was released at the meeting,. It showed that the developing world was full of lead in paints even though the developed world had rid itself of this menace. The issue, which had been on the backburner for the past 15 years, was adopted unanimously and the new initiative will lie under UNEP and WHO. It is sad that despite all these efforts, the Indian paint industry still loads paints sold here with lead, even as the Government remains a mute spectator, watching as millions of children continue to be exposed to this deadly heavy metal through paint, toys etc.

Though these global initiatives promise to change the landscape of chemical safety around the world, India, which is positioning itself to be a major player in the global economy, continues to have an ostrich like attitude. The question is for how long?

Ravi Agarwal

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samples, with the largest contamination in Maharashtra (74 per cent), followed by Gujarat (70 per cent), Andhra Pradesh (57 per cent), Himachal Pradesh (56 per cent) and Punjab (51 per cent). Such widespread occurrence of DDT in basic foodstuff makes the incidence of health hazards even more acute.

But there are some advocates of the continuing use of DDT as an insecticide for disease vector control who base their argument on various factors such as the unacceptably high levels of mortality and morbidity caused by malaria, the proven effectiveness of DDT in significantly reducing malaria transmission, the relatively low cost of DDT interventions, and the lack of any sustainable alternative in many countries.

Stockholm Convention, 2004

The Stockholm Convention, which entered into force in 2004, outlawed several Persistent Organic Pollutants (POPs) and restricted the use of DDT to vector control. The Convention was signed by 98 countries and is endorsed by most environmental groups. It was recognised that a total elimination of DDT use in many malaria-prone countries was unfeasible since there are very few affordable or effective alternatives. This effectively means that the public health use of DDT from these countries would continue until alternatives were developed. The Malaria Foundation International states that “The outcome of the treaty is arguably better than the status quo going into the negotiations...For the first time, there is now an insecticide which is restricted to vector control only, meaning that the selection of resistant mosquitoes will be slower than before.”

Bans and Exemptions on DDT

For malaria control, DDT is sprayed on the walls inside homes and areas where mosquitoes are known to be present. Application in such close proximity to human activities means risk of exposure is high. Researchers in Mexico and South Africa found elevated levels of DDT in the blood of those living in areas where DDT was used to control malaria. The researchers estimated that breast-fed children in those areas were receiving more DDT than the “safe” level recommended by the World Health Organization (WHO) and Food and Agricultural Organization (FAO).

DDT is also used in the control of some agricultural pests, such as various potato beetles, codling moth (which attacks apples), corn earworm, cotton bollworm, and tobacco budworms. In the 1970s and 1980s, agricultural use of DDT was banned in most developed countries. DDT was first banned in Hungary in 1968 then in Norway and Sweden in 1970 and the US in 1972, but was not banned in the United Kingdom until 1984. The use of DDT in vector control has not been banned, but it has been largely replaced by less persistent alternative insecticides. Despite the worldwide ban on agricultural use of DDT, its use in this context continues in India, North Korea, and possibly some other countries

According to the World Health Organization’s (WHO) Roll Back Malaria campaign, an estimated 19 countries (mostly in Africa) are currently using DDT to fight malaria, and another

six are recent users. Thirty-one of the 91 countries that signed the Stockholm Convention requested exemptions for DDT use to control malaria. Currently, DDT is being produced in three countries, India, China and DPR Korea. In India, only HIL (Hindustan Insecticides Limited) produces DDT. It is the biggest producer of DDT in the world and takes pride in declaring that it exports DDT to African countries. There is persistent demand from environmentalists that India, being a signatory to the Stockholm Convention should abide by its decisions and phase out the production and use of DDT. But judging by the blatant and unabashed regulatory capture evident in Senegal, it is clear that the Indian government has its ear firmly tuned only to the producers of the poison.

DDT Alternatives

Alternatives to DDT include selective vector control using targeted spraying, non-insecticide methods such as larvae-eating fish and biological larvicides, more environmentally friendly pesticides, medicated mosquito nets and vaccines. Countries that have moved away from DDT use for malaria control use a combination of drugs, bed nets treated with synthetic pyrethroids, and applying chemicals to breeding areas or houses. Although India, spends one-third of its current national health budget on malaria control but DDT still fails to control malaria, it is time India adopted safer measures.

Reduced Effectiveness of DDT

The evolution of resistance to DDT in mosquitoes has greatly reduced its effectiveness in many parts of the world, and current WHO guidelines require that before the chemical is used in an area, susceptibility of local mosquitoes to DDT



Annual global production and use of DDT (in 10³ kg a.i.) in 2003, 2005 and 2007. "n.a." denotes data not available.

Country	2003	2005	2007	Comment	Source ^a
A. Production of DDT for vector control					
1 China ^b	450	490	n.a.	for export	Pd
2 Korea DPR	n.a.	n.a.	5	plus 155 t for use in agriculture	UNITAR
3 India	4100	4250	6344	for malaria and leishmaniasis	Pd, Ws, Dc
Global production	4550	4740			
B. Use of DDT for vector control					
1 Cameroon	0	0	0	plan to pilot in 2009	WHO
2 China	0	0	n.a.	discontinued use in 2003	SC
3 Congo	0	0	0	plan for reintroduction	WHO
4 Korea, DPR	n.a.	n.a.	5	plus 155 t used in agriculture	UNITAR
5 Eritrea	13	15	15	epidemic prone areas	Qu, WHO
6 Ethiopia	272	398	371	epidemic prone areas	WHO, Ws
7 Gambia	0	0	0	use starting in 2008	WHO
8 India	4444	4253	3188	for malaria and leishmaniasis	WHO, Dc
9 Madagascar	45	0	0	plan to resume use in 2009	
10 Malawi	0	0	0	plan to resume use in 2009	WHO
11 Mauritius	1	1	0	to prevent malaria introduction	Qu
12 Morocco	1	1	n.a.	for occasional outbreaks	Qu
13 Mozambique	0	308	n.a.	reintroduction in 2005	WHO
14 Myanmar	1	1	n.a.	phasing out	Ws
15 Namibia	40	40	40	long-term use	WHO
16 Papua New Guinea	n.a.	n.a.	n.a.	unknown amounts used	
17 South Africa	54	62	66	reintroduction in 2000	Qu, WHO
18 Sudan	75	n.a.	0	no recent use reported	Qu, WHO
19 Swaziland	n.a.	8	8	long-term use	WHO
20 Uganda	0	0	0	High Court prohibited use, 2008	SC, media
21 Zambia	7	26	22	reintroduction in 2000	Ws, Qu, WHO
22 Zimbabwe	0	108	12	reintroduction in 2004	WHO
Global use	4953	5219	3725		

^aDc: Direct communication with national authorities; Pd: Project proposals submitted to the Global Environment Facility; Qu: Questionnaire on DDT by the Secretariat of the Stockholm Convention, SC: Documents published by the Secretariat; Ws: Workshop presentations in the context by country delegates of the Stockholm Convention

^bThe figure for 2005 was extrapolated from the total production. In addition to production for vector control, DDT is produced for Dicofof manufacture (approx. 3800t p.a.) and for antifoulant paints (approx. 200t p.a.).

^cIn addition, DDT is produced for Dicofof manufacture (approx. 280t p.a.).

Source: Stockholm Convention on POPs, 2008

must be confirmed. The appearance of DDT-resistance is largely due to its use in agriculture, where it was used in much greater amounts than the relatively small quantities used for disease prevention. According to one study that attempted to quantify the lives saved by banning agricultural uses of DDT and thereby slowing the spread of resistance, "it can be estimated that at current rates each kilo of insecticide added to the environment will generate 105 new cases of malaria". Resistance to DDT to alternative insecticides remains a key problem in many districts of India. A recent report on vector control in India indicates that the insecticide choice for Indoor Residual Spray (IRS) is rarely based on contemporary insecticide susceptibility testing and there are strong

indications that this is also the case in most other countries.

To sum up, that DDT is harmful to life and nature is accepted world over, barring the few who manufacture it. Scientific research has shown that even low-level DDT exposure carries elevated risks of adverse chronic health impacts. It must always be remembered that DDT poses a potential risk for the environment and human health. Every effort should therefore be made to protect human health adequately and to prevent insecticide release into the environment.

"We cannot allow people to die from malaria, but we also cannot continue using DDT if we know about the health risks."

Tiaan de Jager

—Ragini Kumar Taneja

FEATURES

“No-Use” of Mercury

Today in India, coal fired power generation sector is playing key role in mercury pollution. According to the survey report compiled by an international team of experts, these power stations and waste incinerators contributing 1,500 tons man made emissions into the atmosphere. The lion's share is now coming from developing countries with emissions from Asia, at 860 tons, the highest. As per calculations by the Centre for Science and Environment's Green Rating project about 65 tonnes of mercury have been released every year between 1991-92 and 2000-2001 into the environment due to coal consumption alone out of which about 45.5 tonnes comes from thermal power plants. Thermal power plants account for 70 per cent of the unintentional mercury emissions in India. In the recently concluded Bonn summit in June 2009 India announced its plan to go solar by the end of 2020. India has proposed to generate 20 Giga Watts by solar energy, which is twice the capacity of the summation of the world's solar power generation today.

Apart from this in India, the major sources of mercury contamination are chlor-alkali industries, steel and cement plants, mercury-containing products like

thermometers, pesticides, dental amalgam and waste incineration process. Mercury is considered as dangerous environmental pollutant, both in its elemental form as well as chemical combination. Environmental mercury (elemental form) gets transformed into methyl mercury through microbial action.

The properties of inorganic mercury that make it useful in medicine (response to temperature and pressure) also permit vaporization and resulting toxic effects. The organic forms of mercury circulate in the environment and may change from one form to another in the process. Although all forms of mercury are toxic to humans, inorganic forms generally are less toxic than organic forms. The organic forms are of great concern when they enter the food chain, since these are primarily neurotoxins (A neurotoxin is a toxin that acts specifically on nerve cells) that can damage the brain, nervous system, and other organs. The inorganic forms primarily affect the kidneys. The developing brain of a foetus or child is especially vulnerable to organic mercury exposure.

Humans come into contact with mercury through environmental, occupational or accidental exposure. Swordfish, tuna and many other commonly eaten fresh and salt-water fish are unsafe to eat for pregnant women, women who may become

pregnant and young children because of mercury contamination. A study undertaken by Toxics Link with Disha for levels of mercury in freshwater fish indicated a high level of mercury. Out of 129 cases of excess methyl mercury concentration, 53 samples exceeded by more than 50% above PFA stipulations. 52 cases showed methyl mercury excess of more than 100% above PFA stipulations. 20 samples showed methyl mercury excess of more than 200% of PFA stipulations. 8 samples showed methyl mercury excess of more than 300% of PFA stipulations.

The methylation of mercury is a key step in the entrance of mercury into food chains. This methyl mercury is mercury in its most pernicious form. Methyl mercury bioaccumulates in fish and enters the human body when the fish is eaten. UNEP's Governing Council first identified mercury as a serious global threat over six years ago. It has since supported extensive research that all leads to one conclusion: serious, concerted global action must be taken immediately to reduce the level of mercury in the environment and protect fish as a important source of protein for many communities. It is very essential that the government of India should investigate further and issue fish eating advisories in the country.

—Prashant Rajankar

UPDATES

HDMC Initiative Towards Mercury Free Health Care!

Toxics Link (TL) and Health Care Without Harm (HCWM), with the support of Deshpande Foundation have been implementing a 'Sustainable Health Care Waste Management Project' since last two years, in the hospitals and clinics of Hubli Dharwad Municipal Corporation (HDMC) in Karnataka. To address the issue of mercury in the Hubli Dharwad region, the collaborative initiative of HDMC, TL and HCWH is an initiative to phase out of mercury based thermometer and BP apparatus from the health care facilities in the



future. With the aim to sensitize the issue among the government bodies and health care professionals of twin-city of Hubli-Dharwad 'An Awareness Programme on Mercury in Health Care' was organized at HDMC Conference Hall, Hubli on June 27, 2009.

The event fetched a good participation of 53 doctors representing the HDMC

Health Care Facilities, Primary Health Centers, Community Health Centers and Private Hospitals & clinics. Dr. K.M. Nagaraj, Senior Regional Environmental officer, Karnataka Pollution Control Board, inaugurated the proceedings. Dr. Nagaraj said that mercury is highly toxic to human health and at present is being disposed of carelessly mixing with health care waste and with the solid waste at the household level. He also stated that even a small quantity of mercury could damage the nervous system as well as the environment. He urged the participants to make the every possible effort to make their health care facilities as well as their homes mercury free for a healthy and intelligent future.

Dr. S. D. Awaradi, District Health officer (DHO) emphasized on making the hospitals poison free. Admiring the efforts of Toxics Link and Health Care Without Harm for the sustainable health care waste management in the city, he said that we should understand the hazards of mercury, disseminate the information to other colleagues and contribute to phase out mercury from the health care sector. Dr. V.D. Karpoormath, retired surgeon also spoke that mercury is neurotoxin and nephrotoxin and it should be handled with care and disposed of safely. He further said that health care professionals are the key stakeholders and can play a vital role to make these efforts a success.

Dr. P.N. Biradar, Chief Medical Officer (CMO) HDMC shared the major activities carried out by the implementing agencies (Toxics Link and Health Care Without Harm) in collaboration of HDMC. He also mentioned that the Project has created two model wards and two model clinics in the city, which needs to be upscaled in the entire district. He further stated that HDMC has taken initiative towards the mercury free health care facilities and the alternatives

to mercury equipments to be introduced soon.

In the technical session, the representatives of Toxics Link conducted discussions, screening of films on the usage and hazards of Mercury. Various information materials such as posters, handbills were also distributed. The session covered the specific health impacts of mercury. Like, short-term exposure of mercury vapour may cause nausea, shortness of breath, bronchitis, migraine headaches and fatigue. Where as long-term exposure may lead to damage to the nervous system, kidneys and liver. The exposed person may have the symptoms like tremors, numbness in the fingers and toes, loss of muscle control, memory loss and kidney disease. The children, fetuses, and women of childbearing age are the most vulnerable to mercury poisoning. The national and international initiatives taken about the mercury issue were also shared.

How can one contribute for a mercury free environment?

- Use mercury free thermometers and blood pressure measuring instruments at health care facilities as well as homes

- Ensure the proper disposal of any mercury-containing item in the health care facilities, clinics and home like thermometer, fluorescent lamps etc
- Don't mix mercury-containing waste with household waste (Broken CFL bulbs, fluorescent lamps, thermometers etc.)
- Use non-silvery dental fillings (ceramic etc.)

Mercury is an element that occurs naturally in the earth's surface. It does not degrade and is not destroyed by combustion. Mercury conducts electricity, expands uniformly with temperature and easily forms alloys with other metals. For these reasons, it is used in many products found in homes and schools like thermometer, sphygmomanometer (Blood Pressure Instrument), fluorescent tube lights & bulbs and electric switches etc. and as a dental filling. It is toxic and is a serious global environmental and human health problem, which causes various adverse health and environmental impacts.

—Mohammad Tariq Gaur

Launch of Second Phase of EEJP

Environmental Equity and Justice Partnership (EEJP) announces the launch of second phase of its grant program. Over next three years, between 2009 and 2012, the program will work towards 'securing environmental justice, especially for poor and the marginalized who are often expected to bear more than their share of environmental burdens'.

Towards the attainment of this larger goal, EEJP strives to catalyse grassroots initiatives, trigger new imagination and perspectives, encourage crossover linkages, and provide greater opportunities to connect to environmental thinking. This it seeks to accomplish through its two components — *Environmental Small Grants* (for organisations) and *Environmental Fellowship* (for individuals)

The focus of the current program is on cross cutting environmental issues around Toxicity, Waste and Pollution in India.



Any activity that falls within the program focus and is strategic; action-oriented; builds public involvement and support; focuses on root causes of the issue; and most important, has a clear sustainability plan; is eligible for support under EEJP.

EEJP is currently inviting applications. For details on eligibility, application process, timeline, and other important aspects under each of the components are available on EEJP website (www.eejp.org). The deadline for submitting Concept Note (in prescribed) format is 31 July 2009. All program or process related queries may be addressed to: EEJP Coordinator at info@eejp.org.

Proposed compensation plans for Silicosis victims

The National Human Rights Commission received complaints of silicosis affliction amongst workmen in several states in the country. Many of these complaints cited specific cases where the disease had been confirmed after medical examination. Shri S.A.Azad of People's Rights and Social Research Centre, New Delhi and Dr. Ashish Gupta from Jan Sevak Abhiyan submitted some lists of suspected and confirmed cases of silicosis. The Commission, instead of holding a parallel inquiry with the Supreme Court, would like to put forward its view before it seeking proper directions. However, the specific complaints in which medical examination has confirmed silicosis in workers would be dealt by the Commission itself.

The Commission is of the opinion that the occupational hazard of silicosis is preventable if the working conditions are properly regulated and proper warnings and

equipment are used. Once a person becomes afflicted by silicosis, it becomes the constitutional obligation of the government to take appropriate short term and long-term measures for cure and rehabilitation. Those working in the unorganized sector are also to be given proper attention. None of the governments has come out with a policy giving specific details of preventive, curative and rehabilitative measures, implemented or planned.

In addition, the Commission directs the Union and State Governments to furnish complete information regarding aspects like what preventive steps are being taken, what time-frame is decided for the completion of these steps, and most importantly who

should monitor the government actions. The commission also raises pertinent questions on the availability of adequate compensations to affected workers and Government policies towards elimination of silicosis, especially on the procedural complexities.

The Supreme Court gave certain interim directions to the National Commission on three issues: Survey, Medical Relief and Compensation. The directions issued by the Supreme Court regarding Survey clearly state that the Ministry of health and Ministry of Labour should extend all further assistance to the NHRC for further action in this regard. The Supreme Court has also

recommended the relevant authorities to provide immediate medical relief to the persons diagnosed with Silicosis and compensation to families of those who lost their lives in this disease. The Supreme Court further held that in case of death or permanent disability, NHRC must make provisions for compensation to the family of the deceased and also to decide which body to be held responsible for providing such compensation.

Incidentally although the Supreme Court had previously recommended such directives they were overlooked largely by the relevant authorities. One hopes history would not repeat itself this time.

—Suparna Dutta

INTERVIEW

Dr. Dinesh Kumar Mishra
Convenor-Barh Mukti Abhiyan
 in conversation with Suparna Dutta

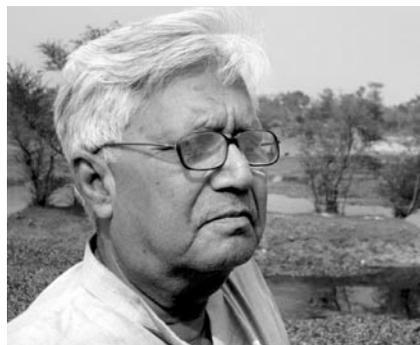
6-B Rajiv Nagar, Patna 800024. Bihar
 2nd July 2009.

• Why do floods occur?

Excessive rain fall, spilling of the banks of the rivers, drainage congestion, breaches in the embankments, roads, canals and other such structures lead to flooding. Floods are also caused because of cyclones and tsunamis etc. Indo- Gangetic plains and the Brahmaputra Basin is the most affected flood basin within India because of its geographical location. Flash floods are also known to strike in flashes like Nagpur, Bhopal, Hoshangabad, Jallundhar, Surat, Bangalore, Nashik, Jaypur, Alwar, Bharatpur and Barmer etc.

• What kinds of flood control measures have been undertaken by the government?

After adopting the first Flood Control Policy in 1954, Government of India through various state 's Water Resources or Irrigation Departments proceeded to construct 33928.642 kilometers length of embankments along its rivers, 38809.857 kilometers length of drainage channels dug to drain unwanted floodwaters and protect 2458 towns against floods and raise 4716villages above the maximum



observed flood level till 2006 Constructing embankments along the rivers has been the major intervention to provide protection against floods. Raising the villages above the maximum flood level has been abandoned after its failure but the other works are continuing. Some dams like the ones of the Damodar Valley Corporation and the Hirakud Dam in Orissa is said to have some flood cushion.

• Under whose jurisdiction state or central does flood control fall?

Flood control is state's subject and the state's Irrigation or Water Resources Departments take care of flood control.

• In recent past where have been the deadliest flood in India?

Uttar Pradesh (1998 and 2002), Bihar (1998, 2002, 2004, 2007 and 2008), West Bengal (2002), Orissa (2002 and 2008) and Assam almost every year figures in news for floods. Floods are

quiet usual in these states but unexpected floods have occurred at places mentioned earlier.

Lat year's flood in the Kosi following a breach at Kusaha has revived the flood debate and accountability of the state in maintaining the structures that were built to combat floods.

The Union Ministry of Water Resources claim that the irrigation potential created and utilized has been increasing every year. However, according to SAND-PR study published in 2007 the net area irrigated by big irrigation projects have in fact dropped between 2004 and 2009. In the light of this please evaluate the UPA performance over the last decade.

Irrigation performance has been questioned from time to time and that has led to the constitution of various committees and commissions to look into the non-performance of irrigation establishment. Over rated targets, poor maintenance and lack of accountability of the irrigation bureaucracy are the reasons behind such dismal performance. It has got little to do with who is ruling where. Irrigation is a state subject and the center only has an advisory, monitoring and funding role. Rest every thing is taken care of by states. In Bihar, for example, the actual irrigated area in 1989 was to the tune of 21.5 lakh hectares and it came down and stayed on to nearly 16 lakh hectares during 1990-2000. Between 1990 and 2000 (when the state was bifurcated into Bihar and Jharkhand), there was additional potential irrigation of 113,000

hectares created but actual irrigation fell by 653,000 hectares. There has been no recovery on that front so far. I think lack of resources may be a problem to some extent but it is mainly a result of lethargy, and not having any accountability to the farmers.

• **Please give us an overview of Union govt's Inter Linking of River (ILR) project.**

SANDRAP did an excellent job by exposing the failure of the irrigation set up within the country and let me tell you that the flood prone area of the country, as per the first Five Year Plan document, was only 25 m ha at the beginning of the plan period. It rose to 33.516 m ha. when Rashtriya Barh Ayog assessed its extent in 1980. Of late, the Working Group on Flood Control Programme set up by the Planning Commission for the 10th Five Year Plan has estimated the flood prone areas as 45.64 Mha., out of which an area of 16.457 m. ha. was estimated to be protected to the end of March 2004. Central Water Commission suggests that

the state has protected 18,222 million hectares of land against flooding till March 2006 which leaves a balance of 27.418 m ha yet to be provided with any kind of flood protection implying that the flood control measures adopted so far have not yielded any result. The area yet to be protected is more than what was the total flood prone area of the country in 1950s. Obviously, the investment in the flood control sector in the country is doing more harm than good and the flood spread area is on the rise.

The government must evaluate its performance before embarking upon such an ambitious program. The irrigated area is coming down and the flood prone area is on the rise and if that is the achievement of the past 62 years, the nation should think twice before handing over the ILR to the same set up.

• **Compared to other flood countries how does India fare in controlling the deluge**

It makes no sense to compare because the local geographical, social and po-

litical conditions are different but there are possibilities of learning from other countries if some good work has been done there. When it comes to adopting those things in our country, one needs to be very careful. Fake success stories of flood control in the Hwang Ho and the Mississippi basin were circulated to tame the Kosi River. We all know what happened to Damodar Valley Corporation that was said to be the replica of Tennessee Valley Authority.

The establishment is hell bent on proving the manmade floods everywhere as disaster and treats, say, Barmer in Rajasthan with Supaul in Bihar on equal footing without ever realizing that the conditions there are poles apart. Unless we diagnose the problem rightly, we will always write wrong prescriptions.

Our flood policy has converted a welcome flood into a deluge and that has created employment for disaster managers. Correct the policies and their implementation, deluge will disappear.

GUEST COLUMN

Guest column - Post card from Ladakh

Dear Reader,

At first thought Ladakh is a dream destination to your senses. It conjures up images of mountains covered with snow, green lakes and white sands. In this amazing diversity lurks the man made problem of waste. Here mind you I do not talk about the various construction projects necessary for development. I speak about something where only we travelers are to be blamed. I was stunned by the amount of litter on the border roads and lakes.

Walking by the scenic Pangong lake one could see an indigenusness vegetation of discarded milk cartons, cans, papers, empty plastic bottles; it is such a shame that it is now a unwanted fixture of the stunning landscape. Although the number of tourists is small at present but still we cannot deny the degradation caused by it. Sadly they



Julie Hutin collecting litter in Ladakh (with the post card)

leave their waste foot prints everywhere. Considering most of the waste is non-biodegradable soon the dream destination will resemble a waste dump if immediate action is not taken.

It is such a shame although there are huge signages everywhere guiding one to the nearest litter bin tourists do not take the trouble of collecting their litter while travelling and throw it randomly. The non-bio degradable waste like plastic takes upto 500 years to break down. The sheer

flouting of the rules indicates less than low levels of awareness and a remarkable disregard to environment at large. This saddened me the most. With a rise in the tourist population this is a serious problem faced by this ecologically fragile region. With the rise in number of trekkers drinking water points are placed everywhere on the trek routes but seldom anyone uses them. There are some instructions also provided by Ladakh Tourism office at the entry point to the guests but hardly anyone pays any attention to it. It is our responsibility to preserve our environment, I feel we owe it to the generations to come and we need to be more alert and responsible tourists.

Let us all do what we can do best, preach but also make sure we practice what we preach.

*Sincerely,
Julie Hutin*

Quotes from the Earth

Two days Ladakh Environmental Film Festival, 2009 "Quotes From the Earth" was held from May 27 to 28 in Leh. Toxic Link organized the festival in collaboration with J & K State Pollution Control Board, and J&K Forest Department.

16 films were screened on different topics during the two - day festival. Films were screened on the themes of climate change, energy efficiency, survival. Opening film was Kamala and her Magic Lantern and the closing film was Andrew Stanton's award winning film Wall e. Large number of students from different institutions watched the films. 440 students from 22 schools of Leh district participated in the two - day fair.

Divisional Forest Officer, Leh, Dr Balaji while addressing the audience said that main objective for holding of a film festival was to create awareness among the masses through school children as the students could play a vital role in disseminating the message about the judicious use of natural resources and their conservation.

On the last day, addressing the gathering at Leh auditorium the Chief Executive Councilor, LAHDC, Leh Mr. Tsering Dorjey thanked the Nodal Officer J & K Pollution Control Board, Leh branch Mr. Balaji and Miss. Pragma Majumder, Senior Programme Coordinator Toxics Link New Delhi, for organizing a film festival of such kind. He emphasized upon the students to take full advantage of the film festival and acquaint themselves with the global warming, different aspects of pollution and use of natural resources and their conservation etc.

Pragya Majumder



Toxics Link
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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 tl Delhi@toxicslink.org

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