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BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL, NEW DELHI

PRINCIPAL BENCH, NEW DELHI

ORIGINAL APPLICATION NO. 199 OF 2014

IN THE MATTER OF

ALMITRA H. PATEL & ORS.

APPLICANTS

VERSUS

UNION OF INDIA & ORS.

RESPONDENTS

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FILED ON: 19/05/2015

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**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL, NEW DELHI
PRINCIPAL BENCH, NEW DELHI
ORIGINAL APPLICATION NO.199 OF 2014**

IN THE MATTER OF:

ALMITRA H. PATEL & ORS.

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**SUGGESTIONS ON BEHALF OF THE APPLICANT BASED ON
DIRECTION 12 OF THE ORDER DATED 20.03.2015 PASSED BY
THIS HON'BLE TRIBUNAL REGARDING THE USE OF THERMO
PLASTICS.**

1. That a Writ Petition being Almitra H. Patel & Anr vs. Union of India & Others i.e. Writ Petition (Civil) No.888 of 1996 was filed by the Applicant in Public Interest before the Hon'ble Supreme Court seeking amongst other appropriate directions to Municipal Corporation /Municipality to identify acquire waste processing sites for use as waste yards in respect of management and handling of Municipal Solid Waste and discontinue dumping of untreated Municipal Solid Waste other than designated sites. The Applicant also prayed for appropriate directions to the Authorities to take appropriate steps and measures for the collection, storage, transportation, hygienic disposal, treatment and recycling of MSW including proper transportation to the designated sites and well-managed placement there for conversion into re-usable/ re-cyclable by-products such as compost, bio-gas, fuel pellets, etc.

The Hon'ble Supreme Court vide its Order dated 02.09.2014 was of the opinion that the said matter ought to be heard by a Forum equipped with necessary expertise to examine and deal with the environment related issues and hence transferred the said matter to this Hon'ble Tribunal. The said matter has been re-numbered as Original Application No. 199 of 2014, the captioned matter.

2. This Hon'ble Tribunal therefore while hearing the captioned matter vide its order dated 20.03.2015 in OA 199 of 2014, the captioned matter issued inter alia Direction No 12, relating to the use of thermo plastic which the Applicant heartily appreciates. The Direction 12 is reproduced herein below for the sake of convenience of this Hon'ble Tribunal :

"The State Government, Municipal Corporations, Councils and Committees shall make all efforts to prospectively provide for use of thermoplastic in place of multi-layer plastic as the prior is completely recyclable."

This Hon'ble Tribunal vide the said order further directed that :

" We also direct CPCB, all brand owners, producers, users and MOEF to submit their views in relation to metallised or non-metallised multi-layer packaging up to 2 kg net weight packs to be replaced by thermo- plastic packaging or any other fully recyclable packaging."

This Hon'ble Tribunal further granted liberty to the parties to seek clarification for the implementation of the said order dated

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20.03.15. The relevant Direction 16 is reproduced herein below for the sake of convenience of this Hon'ble Tribunal :

"We grant liberty to any of the party present before us or members of the general public to seek clarification, if any, in relation to the implementation of the directions contained in this Order of the Tribunal."

3. That therefore the Applicant takes this opportunity to place her views before this Hon'ble Tribunal as follows:

(a) Though we have so far the weak Plastic Waste (Amendment) Rules 2011 which for the first time defines EPR or Extended Producer Responsibility but in Section 6 (d) merely say that municipal authorities may and not shall ask manufacturers to provide finance for waste collection and also the rules regulating the minimum thickness of carry bags. However, the major component of un-recycled packaging waste today is not carry bags but laminates and multilayer pouches. Therefore the need of the hour is that those introducing such packs in the market ought to work closely with recyclers.

Most of the Western world and also Japan, Australia and New Zealand have PACKAGING WASTE RULES which bring all stakeholders together to deal with the challenges of recycling, design of packaging with appropriate materials and disposal of such waste. They all make all stakeholders a party to this policy - Brand Owners,

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Supermarkets, Retail Chains, Food Product companies, FMCGs, Municipalities, material converters, pouch makers etc.

It is pertinent to mention here that Thailand has taken a less inclusive approach. Its government has threatened all producers and retail chains that they are going to levy a huge " PACKAGING TAX" and this has resulted in suddenly all FMCG companies, Supermarket chains, bottled water and drink companies and representatives from the paper, glass, plastic and aluminium industries to form a united front to minimize packaging waste and ensure recycling.

Europe has for decades had a clear formula worked out for contribution to a common fund (e.g. DUALES in Germany) based on the amount of packaging each company introduces in the market.

- (b) Secondly, this Hon'ble Court be pleased to consider the plea of the Applicant to minimize the urban solid waste problem as summarised in the interim application being IA No.22/2011 before the Hon'ble Supreme Court of India.

The Applicant vide its Direction No 12 sought from the Hon'ble Supreme Court on 17.9.1999 in Writ Petition (C) 888/96, following submission of the March 1999 Report of

the Supreme Court appointed Committee for Solid Waste Management in Class I Cities in India, read as follows:

"12, A preventive rather than a reactive response to the magnitude of the urban solid waste problem is called for, as described in section 9.1 and Annexure E of the Report. We direct the Central Pollution Control Board to prepare suitable Waste Prevention and Eco-friendly Packaging Rules, in order to minimise needless generation of solid waste. These Rules shall include provisions for an Eco-surcharge to promote life-cycle responsibility by the manufacturers and marketers of all products."

However, the Hon'ble Supreme Court addressed the earlier 11 suggested Directions over a long time and only the said Direction 12 has remained unaddressed in Writ Petition (C) 888/96 and the Applicants IA22 summarising its key aspects was transferred to this Hon'ble Tribunal alongwith the other proceedings as OA 199 of 2014. It is submitted that the Annexures A-T in IA 22 explain, item by item, the background and need for the prayers sought in IA22, first from the Hon'ble Supreme Court and now from this Hon'ble Tribunal.

The Applicant therefore prays that its prayer 5 in the IA 22 which was pending before the Hon'ble Supreme Court and the Annexure N to the said application be considered. The prayer 5 is reproduced herein below for the sake of convenience of this Hon'ble Tribunal :

"direct the Union of India (Respondent No.1), CPCB and BIS to consider the issue of proactive

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Notifications, Rules and/or Regulations to Minimize Waste and Prevent its Pollution, e.g. for use of unrecyclable plastic in roads, use of Low-Mercury Fluorescents, Lead-Free Paints and Pigments, Low-Phosphate Detergents, phase-out of Short-life PVC products and Expanded Polystyrene Packaging, sale of fully-compostable Garbage Bags as suggested in the present application."

It is submitted that the said Annexure- N is a self-explanatory letter dated 22.3.2005 to the then CPCB Chairman with many suggestions for proposed Waste Minimisation and Packaging Rules. All this shows that right from 1999 through 2005 and till date, a Direction for enactment of such Waste Minimisation and Packaging Rules is decades overdue and most urgently needed for immediate damage control in the face of mounting packaging-waste pollution. A copy of the Annexure-N to the IA 22 before the Hon'ble Supreme Court is annexed herewith and marked as ANNEXURE-1

Therefore, this Applicant most humbly and respectfully prays that this Hon'ble Tribunal that the MOEF and CPCB and other connected agencies may please be issued these long-pending Directions to save the country from needless packaging and product pollution.

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PRAYER

In light of the facts and circumstances narrated, it is respectfully prayed that this Hon'ble Tribunal be graciously pleased to:

- a. Consider the suggestions of the Applicant set out in herein above;
- b) Pass any other order(s) which this Hon'ble Tribunal may deem just and proper in the facts and circumstances of the case.

AND FOR THE ABOVE ACT OF KINDNESS THE APPLICANT AS IS DUTY BOUND SHALL EVER PRAY.

FILED BY

**(M/S KARANJAWALA & CO.)
ADVOCATES FOR THE APPLICANT**

**NEW DELHI
.04.2015**

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BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL, NEW DELHI
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AFFIDAVIT

I, Mrs. Almitra H. Patel, Wife of Hoshang C. Patel, aged about 78 years, resident of No.50, Kothnur village, Bagalure Rd., Bangalore-560 077, present at New Delhi, do hereby solemnly affirm and state as under:

1. That I am the Applicant in the abovementioned Original Application and am familiar with the facts and circumstances of the present case and am therefore competent to depose by way of this Affidavit.
2. That I have read and understood the contents of the accompanying Suggestions on behalf of the Applicant and I say that the facts stated therein are true and correct to my knowledge.
3. That the annexure annexed with the Suggestions is the true of its respective original.



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Adarsh

DEPONENT

VERIFICATION

Verified that the contents of the above mentioned affidavit are true and correct to the best of my knowledge and belief. Nothing false has been stated therein and no material fact has been concealed therefrom.

Verified at _____, on this day of 8 MAY 2015.

Adarsh

DEPONENT

Identified by.....

8 MAY 2015
ATTESTED
[Signature]
NOTARY PUBLIC
Govt. of India



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ANNEXURE-1

(Ref para 1.9, 5.1, 6.13,)

ANNEXURE- N

Petitioner's 2005 suggestions to CPCB for Rules to Reduce Waste Quantity & Pollution

Mrs Almitra H Patel, MS MIT USA, 50 Kothnur, BagalurRoad, Bangalore 560077. Tel 080-2846 5365, almitrapatel@rediffmail.com
Member, Supreme Court Committee for Solid Waste Management
Adyisor, Ganga ICDP Project, Clean Jharkhand Project

22.3.2005

Mr Rajagopalan, Chalmrman, CPCB
East Arjun Nagar, Delhi 100032

Dear Mr Rajagopalan

WASTE MINIMISATION & POLLUTION PREVENTION

Greetings. I refer to our conversation yesterday when you had kindly agreed to consider facilitating a list of interventions which CPCB could undertake either directly or through various concerned ministries, to minimize waste as well as to prevent pollution and inform the consumer of potential health hazards.

WASTE MINIMISATION

After the Supreme Court Committee submitted its recommendations in March 1999, there remained several areas not covered by its Terms of Reference or the Report, which a member suggested I could take up separately in my capacity as Petitioner, such as citizen involvement, good accounting practices and Waste Minimisation and Ecofriendly Packaging.

This last item is the final one of twelve Directions Sought in September 1999 in WP 888/96, and may be taken up by the Court after December 2005 or so, as we are currently on Directions 8 and 9.

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I would like to record here my great appreciation of the positive and constructive role of CPCB, despite being a Respondent, and Dr Akolkar in particular, in the task of cleaning up India, by preparing, on its own initiative, two Drafts of the Municipal Solid Waste Rules which were then formally discussed with the Supreme Court Committee before sending on to MOEF. I look forward to similar proactive initiatives by CPCB in advance of my request to the Court for the drafting of Waste Minimization and Ecofriendly Packaging Rules for our country, similar to several prevailing in the EU and many North American States and Provinces, especially California. Some examples of the elements of their rules, not necessarily in order of priority, are given below. Most succeed best through economic incentives, so even in the absence of Rules, a slight rebate in Sales Tax or VAT for eco-friendly packaging and take-back participants can work wonders.

1. **BottleTax or Take-Back Rules** for single-use packaging like PET bottles for soft and hard drinks and mineral water. Even a nominal rebate works wonders: 5 cents or 10cents per bottle or can brings in upto 85% of units sold, as Ireland discovered in the first few months of introducing such a policy. Even if yuppies or housewives do not bother to return these, their employees do, or failing that the ragpickers. We already have this practice in India since almost a century, for "goli-soda" bottles and beer bottles, currently at Rs 5 per glass bottle of carbonated drinks. So the public will have no difficulty accepting this for PET as well, at a rate of say Re 1 refundable surcharge per bottle returned. (Less is not practical, since nobody handles change smaller than Re 1 nowadays). The current

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rate of Rs 5 per glass bottle does not represent its market value as recyclable raw material, but covers the cost of the "reverse-distribution" chain.

A Bottle Tax is being strenuously resisted by the major players, of which Pepsi is the most cooperative and Coke the most defiant and indifferent. For example, at Bangalore's "healing sessions" by Benny Hinn, attended by 5 lakh people and sponsored by Coke, the Jakkur aerodrome used was littered with uncollected PET bottles, despite advance offers of free cleanup by an experienced recycler who left Benny Hinn's Mumbai event spotless the previous year, when Pepsi were sponsors and provided both space and permission for bottle collection. The same thing must be happening at cricket matches sponsored by Coke.

2. So in addition to a Bottle Tax or Take-Back Policy, we need national policy or legislation under the E P Act to prevent litter pollution at events sponsored by producers of consumables like soft drinks, ice creams, distributors of fliers etc, by requiring them to file an Ongoing Cleanup Plan for any sponsored event before being granted permission for the event by civic authorities. Can this find a place in the anti-littering para of our MSW Rules?

3. Mandatory Recycling Targets for packaging suppliers has worked wonders in Europe. Germany's Duales System, for instance, required annually increasing targets (currently 55 to 80 %) for categories like glass, cardboard, plastics, aluminum cans, Styrofoam etc. Europe has about 22 different such schemes in various countries. In all of them, basically the packaging user industries bear the cost of take-back for

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recycling in proportion to their annual tonnage purchase and use of such packaging. In India, given our high informal recycling rates, we may do this through say the Cardboard Manufacturers' Association or Carrybag Manufacturers' Associations, leaving it to registered members to rope in unregistered ones for contributions.

4. In India this has been tried successfully but sporadically for sales promotion in one-free-for-ten-or-twenty wrappers etc for items packed in tiny multifilm sachets, which are another huge nuisance in Indian wastes. We can find economic incentives for firms that institutionalize this, either for their own products or for generic products (e.g. any paan-masalas or shampoos or namkeens). Similarly for non-recycled items like expanded polystyrene use-and-throw plates and cups.

5. Some countries have economic disincentives to discourage needlessly large packaging, such as half-full cereal boxes. In Russia, toothpaste tubes were sold without any cardboard packaging addition, which is not really required for protecting the contents.

6. Eco-friendly substitutes for non-recyclable packaging can be mandated, such as a pre-announced gradual phase-out of Styrofoam packaging [expanded polystyrene, EPS] by papier-mache moulded shapes or folded-cardboard supports. This already being done since long by Sony, Nokia and others in Japan because of the costly volume of landfills occupied by Styrofoam or Ufoam. In India in the late nineties, PSI was voluntarily recycling polyurethane foam packaging for electronic hardware received and shipped out again by a cut-and-paste peon in the

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stores department. Suppliers of white goods like refrigerators, washing machines etc should also be required to take back their bulky packaging by offering refunds for its return to the store. This will automatically force them to use collapsible modular shapes for compact return shipping and reuse.

POLLUTION PREVENTION THROUGH TAKE-BACK

7. India's first and laudable effort is the Rule for Take-Back of lead-acid batteries. We can learn from its weaknesses and improve subsequent such rules. In an effort to keep Household Hazardous Waste out of the MSW stream, we need similar mandatory take-back (preferably driven by economic incentives) initially for:

- a) Insecticide spray-cans (e.g. HIT) and anti-termite chemicals etc.
- b) Garden pesticides, herbicides and agro-chemicals (maybe for ALL Red-Triangle and even Yellow Triangle Agro-chemical packaging)
- c) Fluorescents containing more mercury than levels currently exempted in EU's RoHS legislation. [Restriction of Hazardous Substances]
- d) Torch batteries and Button Cells.
- e) Cosmetics & Paint cans containing heavy metals (See Labelling below).

POLLUTION PREVENTION THROUGH PRODUCT LABELLING

8. If paraffin oil is being objected to in baby oils, and pesticide traces in soft drinks, how much greater is the need to label the exact content of lead in hair dyes and ayurvedic medicines and paints (also cadmium and chromlum), of mercury in sindoor or in light-up switches in kiddie shoes and toys, of arsenic in wood preservatives etc. A list can be made of these highly polluting toxic elements, whose presence **MUST** be reported on labelling for ALL products containing them.

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POLLUTION PREVENTION AND HEALTH PROTECTION THROUGH PRODUCT PHASE-OUTS AND BANS

9. Lead-based paints are now banned since years in most developed countries, but not in India. UNICEF ordered (and got, in India) lead-free paint on childrens' playground equipment sponsored by them. But these same well-informed suppliers continue to use lead-based paints on all their play equipment out of sheer indifference or because there is no blanket legislation to create a level economic playing-field for compliance. Dr T Venkatesh, Head of Biophysics and Biochemistry at St John's Hospital Bangalore and founder of NRCLPI (National Referral Centre for Lead Poisoning in India) can send you documented evidence of the lead levels found in playground soils and in the blood of children frequenting these in Mangalore. Contact venkatesh.thuppil@gmail.com or 93412-42430.

10. We can start by charging an Eco-Tax for Haz-Waste Disposal of containers for such toxic-containing paints, with a time-table for their phased total discontinuance. The Eco-Tax can be either straightaway or progressively raised to equal the difference in cost between cheap toxic paints and their maybe costlier eco-friendly alternatives, so that compliance can be market-driven.

11. Similarly, since we cannot ban immersion of painted idols at festivals, we can certainly ban the use of paints containing lead, mercury, cadmium, selenium, thromium, mercury etc for such purposes. The paint industry will have to indicate with say a Green

Dot or Blue Fish or such eco-friendly paints so that even illiterate persons know what can be permissibly used.

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12. We also need economic incentives to move away from chlorine-bleached paper and feminine products, as their production process gives rise to large amounts of dioxins in their environs, especially water bodies contaminated by their effluents. This can be done either by a phased ban on bleached toilet paper, Huggies, sanitary napkin filler etc, or by an Eco-tax on bleached products or a tax rebate on non-bleached items.

13. We can and should ban needlessly polluting items like mercury-containing light-up kiddie-shoes and toys which have a short life and end up in municipal waste, not haz-waste sites.

14. We also need to ban one-time-use rigid PVC containers like bottles for ketchup, mineral water (even for duplicates of popular brands), cosmetics etc. These end up in municipal waste which is still commonly burnt countrywide, generating dioxins. A more important reason is that just one missed PVC bottle in 10,000 PET bottles spoils the whole batch as it chars and darkens at a lower temperature. That is why Reliance ended up with a useless batch of 5000 tons of PET flakes when it tried to enter this recycling market.

A ban on PVC bottles would automatically make PET collection and recycling viable, keeping these out of storm drains and sewer pipes and thereby reducing urban flooding in the rains. PVC has its uses and place, in long-life construction items like fire-retardant electrical wiring and casings, or flexible medical tubing. Even the common cheap PVC chappals have at least a year's life. But there is no excuse for permitting its use in one-time-use rigid packaging for which dozens of eco-friendlier substitutes

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exist. I have a collection of several of these needlessly-PVC bottles which I can send you if required.

WASTE MINIMISATION & POLLUTION PREVENTION THROUGH PRODUCT SPECIFICATIONS

15. The most urgent need is for a reduction in the permissible free-phosphate levels in detergents. Eutrophication and slow death of Lake Erie was arrested by both US and Canada jointly bringing down the levels of free phosphorus to 2.2% in a briefly-phased manner. This was done decades ago, so the know-how for alternatives is well established. In contrast, VOICE and CERC in Ahmedabad found, in a study reported by Down To Earth, that our top brands of Surf, Ariel etc have upto 21% free phosphorus. This penny-wise attitude of detergent producers leads to huge waste-management costs for cities that have to deal with removal of water-hyacinth etc from their water-bodies, where they flourish on this free fertilizer.

Whenever this issue has been raised over the years, either in NGO forums or even at MOEF meetings, Hind-Lever has said first stop the inflow of human waste into your water bodies as faeces contain more phosphorus than our detergents. At our stage of development, I think we have no room for such a cynical and irresponsible response.

We need to act on BOTH fronts, simultaneously, not sequentially targeting the poorest persons and most difficult problems first.

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MAKE ECO-MARKS MANDATORY NOW

16. CPCB has spent enormous valuable effort since 1991 in preparing criteria for certification of 14 categories of industries to qualify for Ecomarks. These were to be voluntary. Till 1999 I think there was not a single taker for any category. Soon after Godrej came forward to get an Ecomark for its detergent, its then joint-venture partner Proctor and Gamble forced them to withdraw their application. I think the country has lost patience with non-compliance on a voluntary basis. After giving industry a chance for 15 years to behave responsibly, it is time to make these Ecomark criteria (if not the mark itself) mandatory in a phased manner. This may require; on a case-by-case basis, a joint review with industry on slight initial relaxations. For example zero free-phosphate for Ecomarked detergent may be neither feasible nor necessary if 2% is acceptable to industry. The edible oil industry could not guarantee lead-free oil from peanuts grown by the roadsides in leaded-petrol days, but may be more receptive now.

17. Another objection voiced at the time was, that industries were not willing to pay for the additional BIS-type charges and bureaucratic interference in production that goes with it. Also, that their label designers, fighting for every square millimeter of space for product promotion, were reluctant to spare space for an additional Ecomark symbol. Hence I suggest that the use of and payment for the Ecomark itself can continue to be voluntary, but the STANDARDS and norms implied in them, perhaps with some relaxation, must now be made progressively mandatory as norms for the industries where so much homework is ready. It is a pre-condition for us to consider ourselves a

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a developed nation, where value for human life and well-being is a well-established social definition of such status.

This is a very long list. But CPCB has many talented and dedicated staff who can each run with one or more of the issues raised above. At the highest levels, and yourself personally, inter-ministerial lobbying will be called for to achieve holistic results.

With best wishes and always with pleasure at your service,

Sincerely,

Almitra H Patel

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[Ref Para 5.5, 6.14]

ANNEXURE- B

PHASE-OUT OF SHORT-LIFE PVC

A Mission for the Environment Ministry

50 Kothnur, Bagalur Rd, Bangalore 560077. 98443 02914, 080-2846 5365
almitrapatel@rediffmail.com, www.almitrapatel.com. 9 October 2007

Dear Friends

We have all read about the recall of Chinese-made toys with lead-content paints. How have we reacted --- with shock or sympathy? surprise or complacency? a sense of superiority? We could be next. Has this led any of us to seek a ban on, or availability of, leaded paints and printing inks in India? Or at least disclosure of heavy-metal content in all our paint containers? Indian Industry is full of similar skeletons, awaiting discovery. Even after The HINDU In October, 2006 reported high levels of lead and cadmium in Indian PVC toys, there has been little effective action or self-regulation.

Today is a golden-opportunity for each and every one of us to show a sense of leadership and pride in our country by proactive measures and policy advocacy for cleaner technologies. The plastic Industry itself is an excellent place to begin, starting with PVC, a poison plastic now being phased out worldwide even for piping and cables. India is no longer a poor nation and has no excuse to continue with the use of PVC in short-life one-time-use applications. Sadly, most Indians and Indian Industries are not eco-friendly unless legally forced to be so, hence the need to lobby for clear phase-out legislation. The plastics industry needs to help this along by providing technical solutions for cleaner alternatives.

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PVC is toxic at every stage of its life cycle: manufacture, use and disposal.

Its global production of 40 million tons a year uses 40% of global industrial chlorine, converted first to Ethylene Dichloride, then to volatile Vinyl Chloride Monomer (VCM) which at even one part per billion increases cancer risks by one per five thousand individuals exposed to fugitive emissions during VCM transfer from ships, from plant pumps, compressors, pressure relief devices, connectors and valves, from dryer exhaust and even evaporation from discharged effluents.

During use, toxic phthalates leach into foodstuffs, yet we turn a blind eye to use-and-throw PVC for mineral water, food packaging and even baby milk-bottles! Twenty countries have already banned phthalates in toys for children below 3 years. India is not one of these. Surely our kids also deserve protection from such 'poison lollipops'?

During disposal, the 57% chlorine content of pure PVC generates deadly dioxins when waste is burnt on roads or waste-dumps or as refuse-derived fuel in waste-to-energy incinerators or in boilers. At waste dumps and landfills, toxics in PVC, like phthalates and heavy metals, leach into soil and water. Burning releases them into the air and landfill gases.

PVC recycling is not an answer. It is a health hazard for those handling and recycling electrical cabling. In mixed waste it increases the toxic impacts of other discarded products like computers, auto parts, coated papers. One PVC bottle can ruin a batch of 100,000 PET bottles during their recycling and adds a lot to plastic recycling costs. Hence the 1990 Swiss ban on PVC bottles. Even recycled alone, PVC's variable formulations make it difficult to recycle all PVC economically.

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Where is PVC useful?

Abroad, 84% PVC is used in long-life items like piping and the construction industry. PVC pipes are corrosion-resistant, easy to install and give low-friction flow of liquids. PVC in cables does not burn, though its HCl gas release in fires kills many. Fires in buildings and vehicles also release dioxins.

Despite this, countries like Canada and Slovakia, and cities in US, UK and the EU have already banned or are banning the use of even long-life PVC items like piping. Six German States, 62 Spanish cities and the Sydney Olympic Village are PVC-free.

Industry is following suit. GM, VW and Honda are removing PVC from cars. (Indian exporters take note!) and Sony from electronics. The US Navy and Airforce and NASA are eliminating PVC. The USEPA HQ in Washington DC and major architects have vastly reduced or stopped the use of PVC in walls, floors and roofing.

Where is PVC unnecessary?

PVC need not and should not be used in use-and-throw items like bottles, packaging for food, water and medicines, stationery and labels, toys, footwear and consumer goods, amounting to 24% of global use. Replacing PVC with other plastics will cause no labour or technical problems. But one should be careful not to replace PVC labels, say, with nuisance non-recyclables like BOPP labels for soft-drink bottles, which in many countries including Pakistan have been replaced by easily removed paper, or no-wrapper printing.

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Hidden toxics like PVC in multi-film sachets and packaging, must be eliminated. All of us must decline to promote its use and work for safe recyclable alternatives.

PVC for Biomedical Use

PVC is used in 25% of all medical plastics, because it is flexible, transparent, low cost and bio-compatible. That is why the Biomedical Waste Rules require that all biomedical plastics can only be sterilized and shredded, not incinerated. Still, it is time to develop and promote safer alternatives and make them cost-effective. Soft PVC for medical gloves and intravenous bags is easily replaced by polyethylene and even compostable plastic film. Till full replacement is done, the low-cost treatment invented by Trivandrum's Sree Chitra Tirunal Institute for Medical Sciences to prevent leaching of toxic phthalate plasticizers into life-saving fluids should become mandatory for Indian producers of all PVC items.

The Way Forward

At an Asia Pacific conference on Recycling of Plastics in February 2007 at Mumbai and Delhi, this proposal for a ban on use-and-throw short-life PVC items was met with surprising acceptance by all. So what is now needed is a compilation of Indian producers or importers of PVC, the percentage of their raw material going into short-life items, an inventory of PVC rigid and film producers who would be affected by a ban, the cost of conversion to non-PVC production, the added cost of such non-toxic products, a reasonable time-table for phase-out, policy advocacy with the industry, with MoEF & CPCB, and any economic instruments necessary to ease the transition.