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# DPGs, Toxic Waste and Dirty Industries - Partners in Flight

## Introduction

**Domestically prohibited goods (DPGs) are not alone in their flight across national borders. In recent years, as the "green" movement targets other dirty sectors of the economy, many more items have joined DPGs on the flight to far away, less watched corners of the planet.**

**Among such items are a variety of unwanted toxic wastes. These include municipal wastes, industrial wastes and hazardous substances. The third contentious issue with regard to North-South unholy trade is the shifting of polluting industries.**

**Growing public awareness and strict environmental regulatory measures at home in the North is the cause. It is best understood as the NIMBY (not-in-my-backyard) syndrome. This is compounded by the WIMBY (welcome-in-my-backyard) syndrome in the South i.e. lax environmental laws, poor enforcement, and the desperate need for opportunities at any cost.**

**This Briefing Paper examines the different facets of NIMBY and WIMBY, and argues about the need for equitable regulation for the sake of the "global" environment, and humanity.**

### The International Conventions

By late 1980s, it had become apparent that international trade in hazardous and toxic wastes threatened the ecological integrity of many Third World countries. Consequently, this also adversely affected the health and well-being of their citizens. The resultant uproar led to parleys at the international level under the aegis of the United Nations Environment Programme (UNEP).

The outcome was the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal. It was adopted in 1989 by 116 member states. This convention regulates the cross-border movement of hazardous wastes. Furthermore, it obliges the signatories to the Convention to ensure their environmentally sound management, in particular their disposal.

Though nuclear wastes are not covered under the Basel Convention, it is interesting to note the backdrop. Until 1983, some 40 sites in the Atlantic and Pacific Oceans were used for dumping of nuclear wastes. It has stopped since the adoption of the Extended Moratorium on Sea Dumping. This accord was signed in 1985, at the 10th consultative meeting of the signatories of the London Dumping Convention, 1975.

The Basel Convention came into force on May 5, 1992. So far 97 states and the European Union have signed the convention. The notable non-signatory to the convention is the United States of America, otherwise an environmental champion.

The Basel Convention represents new norms, rules and procedures governing the movement and disposal of hazardous wastes at international as well as at national levels. "This instrument represents the intention of the international community to solve this global environment problem in a collective manner," observed Dr I. Rummel-Bulska, executive secretary to the Secretariat of the Convention.

The Convention has evolved further over three meetings of the Conference of the Parties held in December 1992, March 1994 and September 1995. A number of Decisions and an Amendment were adopted by the Parties for the implementation of the Convention.

Some other predecessors to the Basel Convention were UNEP's non-binding Cairo Guidelines and Principles for the Environmentally Sound Management of Hazardous Wastes. Since 1987 the UNEP has made efforts to develop a system of "prior informed consent" under its Provisional Notification Scheme for Banned and Severely Restricted Chemicals to cover a wide range of chemicals used in industry and food sector.

The Basel Convention is, in fact, an offshoot of the Prior Informed Consent principle followed at the international level with respect to exports of wastes, hazardous pesticides and industrial chemicals. Where hazardous goods are involved, PIC is a mechanism for ensuring:

- notification as an obligation of the exporter and
- consent as a right of the importing government,

There also exists a binding decision of the OECD

(Organisation for Economic Cooperation & Development) on exports of hazardous wastes from the OECD area since 1995. Both this and Basel Convention require the prior consent of the importing country before an export may take place.

Before the close of the conference in Basel, 51 African countries walked out of the conference without signing the treaty. Their unmet demands can be summarised as follows:

- the adoption of standards for waste management was not ecologically better than those of the country of export, and
- the lack of explicit ban on all North-South waste movements.

In a parallel initiative within the framework of the Organisation of African Unity (OAU), the African countries met to adopt an alternative structure to the Basel Convention. One which would call for total regional ban on any transfer of hazardous wastes from industrialised countries to Africa (Bamako Convention).

The primary objective of both the Basel and Bamako Conventions was to control movements of wastes across borders. Thus both set obligations for producing and importing countries, and for transit countries as well. Amongst the obligations:

- transboundary movements are permitted if all practicable steps have been taken to avoid adverse effects on environment, and health;
- each party to the convention must take necessary steps to ensure that the production of waste is reduced to a minimum;
- each party shall make sure that, wherever possible, adequate installations for waste disposal be located within the borders of the producing country; and
- transboundary movement of hazardous wastes are authorised only if the exporting country does not possess:
  - technical resources and installations required; or
  - adequate sites for environmentally sound methods of waste disposal.

The G-77 group of developing countries, at the first meeting of the Conference of Parties (CoP) to the Basel Convention in Uruguay, 1992, urged for a total ban on exports of hazardous wastes from OECD to non-OECD countries. In 1994, the CoP decided to prohibit all transboundary movements of hazardous wastes from OECD to non-OECD countries.

The CoP also decided to prohibit (w.e.f. 1 January 1998) all transboundary movements of hazardous wastes which are destined for recycling or resource recovery operations from OECD to non-OECD countries. However, the CoP transferred the onus of furnishing information regarding wastes imports for recycling or resource recovery on the non-OECD countries.

**Box 1. Effects of the Ban—Different Perspectives**

On Least Developed Countries
- do not have organised recycling industry;
- recycling is mostly done in informal sector;
- the institutional base of the sector is weak; and
- thus the ban will have definite positive effect on their environment, and not result in de-industrialisation.

On Developed Countries
- likely to provide incentives to recycle their own wastes; and
- in reality, such possibilities are to be qualified with respect to NIMBY as well as the WIMBY syndrome, and thus may lead to shifting of polluting industries.

On Advanced Developing Countries
- recycling industry is getting organised;
- linkages (backward and forward) with other industries are becoming stronger;
- short-run economic effect would go against them; and
- long-run environmental effect is positive.

## What are Wastes?

Waste generation is inherent to majority of industrial processes. Any unavoidable material resulting from an industrial operation for which there is no economic demand and should be disposed off is defined as “waste”.

The Convention defines wastes as substances or objects which the holder intends to, or is required to, dispose off. “Disposal” comprises operations leading to:

- final disposal, and/or
- recycling,
- resource recovery,
- reclamation,
- direct re-use, and
- alternative uses.

However, the Convention does not specify ceilings for toxicity. For example, a substance contaminated with even a small quantity of hazardous element may be considered as hazardous waste. Further, there is no time factor of toxicity, e.g. certain wastes become toxic after a particular time period and such wastes are not identified as hazardous and therefore trade in those wastes will not necessarily attract the Convention. Therefore, the crucial factor is to adopt a list of hazardous wastes which will then act as a technical framework (particularly given the underdeveloped technical capacity of the developing countries) for nation-wide ban of hazardous wastes imports.

Human settlements too generate large quantities of waste. By and large, these wastes are biodegradable and their disposal has mainly been a local problem. However, in recent years, accumulation of mountains of garbage and other municipal wastes too have prompted communities to look for safe disposal sites, even across national boundaries.

In 1980, the OECD estimated that the total amount of waste generated by its member countries was about 8bn tonnes every year.

According to the Times Guide to the Environment, a handbook on “green” issues, industrial, hazardous and municipal wastes accounted for about 2bn tonnes per year. The greater proportion of this amount was accounted for by industrial and hazardous wastes.

The remaining 6bn tonnes consisted of agricultural, mining, demolition, and power-generating wastes; dredging spoils and sewage sludge. The only saving grace is that these figures have remained steady due to improvements in waste-disposal techniques and industrial conservation measures in the 1980s.

However, according to the Secretariat of the Basel Convention, over 400mn tonnes of hazardous wastes are generated each year. A large amount of this crosses national frontiers.

The United States of America accounts for nearly 60 percent of the OECD wastes and 90 per cent of hazardous wastes. Experts estimate that nearly 75 per cent of industrial and hazardous wastes, chemicals, oils and metals are disposed off on-site.

**Box 2. Enforcement of the Ban: Problems and Prospects**

Problems

- ban on waste trade is between OECD and non-OECD countries—definition of countries poses problems, and also heterogenous nature of non-OECD countries;
- under pressure from the recycling industry, there is a possibility of OECD and non-OECD countries entering into bilateral agreements, as a result of the WIMBY syndrome; and
- furthermore, the ban does not apply to South-South trade.

Prospects

The United Nations Environment Programme adopted a two-pronged strategy to make the ban effective.

- cleaner production technology at source, i.e. an integrated and preventive production (close-loop) technology; and
- increasing the capacity of developing countries through training and transfer of clean technology.

Domestic rubbish constitutes 80 per cent of municipal wastes. It consists mainly of paper and plastic packaging materials. Glass too forms a significant part of domestic wastes. A large part of these wastes are recycled and the leftovers are dumped at landfills. However, urban centres are running out of space to locate landfills. In the UK, over 4mn tonnes of wastes are disposed off at landfills and another 0.25mn tonnes at sea.

**The Rationale of Western Waste Invasion!**

Problems associated with hazardous waste disposal started coming to light in the 1970s. The discovery of hazardous chemicals leaking from Love Canal, USA led to investigations of suspected hazardous dump sites. By 1990, more than 1200 sites in the US had been identified as severely contaminated.

The origin of Western waste invasion can be traced to four factors:

- they generate vast majority of world's hazardous toxic wastes;
- the cost of waste disposal in their countries was becoming exponentially expensive;
- many of these governments were encouraging their industries to promote international waste trade by adopting the NIMBY strategy; and
- developing countries, under the WIMBY strategy, often welcome hazardous toxic wastes for their disposal.

One cannot resist quoting Lawrence Summers here. Currently, US deputy secretary of treasury and former chief economist, World Bank, Summers was quoted: "I think the economic *logic* behind dumping a load of toxic waste in the lowest wage country is impeccable and we should face up to that...". *(Emphasis added)*

In essence, waste trade is but an economic *gradient*, i.e. a search for the cheapest and easiest dumping grounds. The earliest attempts to export hazardous toxic wastes primarily involved crude dumping of wastes in landfills, or abandoning them in the sea. Today, faced with the pressures from the governments and the civil society (the NIMBY strategy), waste traders call their *projects* "state-of-the-art recycling operations", "humanitarian aid", and "resource recovery", and define hazardous toxic wastes by various misnomers: fertilisers, micro-nutrients, fuel etc.

On the other hand, inequitable trade conditions and unsustainable debt burden forces developing countries to accept toxic wastes from the developed world. In the words of J. Puckett (*Green Globe Yearbook*, Oxford University Press, 1992): "Due to an increasing debt burden combined with a fall in Third World agricultural and mineral commodity prices, less industrialised and newly industrialised countries face horrifying pressures to accept trash for cash." In other words, the WIMBY trap.

However, the actors in the NIMBY and WIMBY scenario are often different: those who are in the NIMBY camp are usually ordinary citizens (and governments only because of the pressure from the civil society) while those in the WIMBY camp are generally governments.

It is the poor people in developing countries who are the victims. They have a weak bargaining position and very little choice between their health and jobs, thus forced to accept unsafe occupations. It also shows poor advocacy on the part of the civil society at large and non-responsiveness of the governments of developing countries. So long as there is a uninformed civil society and non-responsive administration, the governments will be in a position to sail the *projects* through the window--*safe disposal in an environmentally sound manner.*

**Dilemmas of the West**

The Basel Convention estimated that over 400mn tonnes of hazardous wastes are generated every year in the OECD countries alone. Industries of developed countries are faced with a so-called dilemma i.e. whether to swallow or spit hazardous toxic wastes generated through the production process.

To avoid domestic environmental regulations and disposal costs, many waste generators have opted for the second option--get hazardous toxic wastes off their hands by simply shifting them to other countries with poorer environmental laws.

A classic example of double standard is that practised by Germany; believed to be the OECD's biggest exporter of toxic wastes. Greenpeace documented two factors: strict waste management regulations and worst waste export laws. This has led Germany to keep its home turf clean at the expense of the Third World, and its people.

Precise estimates of worldwide hazardous wastes volumes are difficult to determine, but range from 300-400mn tonnes every year. Cross border traffic in wastes in Europe alone exceeds 20,000 West-East crossings a year. North-South shipments, represent

**Box-3: Shipping shit**

- Some years back, a Norwegian ship was caught dumping nearly 15,000 tonnes of municipal waste at Kassa Island in Guinea. The Guinea government traced the ownership of the ship to the US and the wastes were from Philadelphia (USA). The incinerator waste was shipped in the guise of recycling for manufacture of building bricks. The wastes, deposited on permeable soil, showed high levels of dioxin, toxic chemicals and heavy metals.
- The "Karin B" case: Nigeria reported an incident in which an Italian national working in Nigeria obtained a product import license, then substituted shipments of several thousand tonnes of highly toxic and radioactive wastes, including 150 tonnes of PCB (polychlorinated biphenyls) contaminated waste. These wastes were imported aboard five vessels over a period of several months in 1987- 88. Later the "Karin B", a German registered ship, was found to have illegally dumped 2,100 tonnes of toxic wastes in Nigeria.
- Greenpeace uncovered a series of mysterious waste shipments from the US to India in 1992. According to US Customs data, Pepsi Cola Bottling Corporation has been shipping plastic waste from California. More than 7000 tonnes were shipped during 1992. The waste was described as scrap plastic PET (polyethylene teraphthalate) bottles.
- One of the largest shipment of vitrified high level nuclear waste was scheduled to leave France and head for Japan at the end of December, 1997. Despite earlier pledges of transparency by the plutonium industry, the route was kept secret and appeals for prior notification from countries along the shipping route had been ignored. According to Japan Nuclear Fuels Limited, the shipment consists of 60 containers of nuclear wastes. The deadly material is a by-product of the reprocessing, or seperation, of weapon-grade plutonium and has no commercial value. The waste is so deadly that a person within one metre of an unshielded block would receive a fatal dose of radiation in less than one minute.

about 10 percent of total transboundary movements.

The problem of international traffic in hazardous wastes gained new prominence in 1988, when media coverage alerted the public to the uncontrolled dumping of millions of tonnes of hazardous wastes across national borders, notably in Africa and Eastern Europe (see Box 3).

Recently, according to published reports, an American waste trader proposed to export US garbage to the Marshall Islands. This was because garbage disposal fees are as high as $200 a tonne in the US and it would cost only a few dollars to do so in those Islands. The trader was expected to pocket at least $2mn by just brokering the deal. Alas, it fell through due to protests by alert environmentalists.

More galling is the fact that a consortium of Western waste traders recently offered Guinea-Bissau, a tiny Central African country, an amount twice its Gross National Product, to import hazardous wastes from Europe and North America.

**Recycling: Recovery of Waste or Dirty Industry?**

Recycling is recognised as a process of recovery in waste management hierarchy. The hierarchy establishes an order of priority between waste management options:

- waste avoidance;
- reduction of quantities and toxicity at source;
- recycling, resource recovery and re-use; and
- environmentally sound disposal.

Recycling has undisputed and well documented advantages on both environmental and economic grounds. Exports of wastes can be environmentally beneficial provided that the country of destination has better environmentally sound facilities than the country of origin.

This is most likely in the case of intra-OECD exports, or from South to North. (The latter possibility is exclusively provided in Art.39 of the Lome IV Convention. This convention is an agreement to foster preferential trade among the European Union countries and their former colonies).

Exports for recycling can be justifiable, from an environmental viewpoint also. If TNCs chose to locate recycling plants in newly industrialised and/or transition economies for economic reasons, under the same standards as their home countries. It won't be out of place to recall an analogous adage coined by Prof Jagdish Bhagwati: "Do in Rome as you do in New York, not as the Romans do".

However, two points have to be kept in mind while adopting such a line of thinking. First, it should not be interpreted as if developing countries are primarily responsible for generation and unsound disposal of hazardous wastes. And second, to be meaningful, it requires strict multilateral regulatory actions. While, the responsibility should be shared equally by each contracting party, including the TNCs.

From the economic viewpoint there are two arguments for recycling of wastes. First, recycling of certain wastes can lead to recovery of valuable raw materials. The most important example is that of scrap metals. Second, recycling can also have advantages if the process is technically simpler than that used for extraction of raw materials from primary sources. Furthermore, the simpler process should be easily accessible for countries with less sophisticated research and infrastructure facilities.

This approach is ideal, but in the real world the problems are different. One major problem is how to approach the issue of generation of toxic wastes in the first place--the costs associated with them. Here, if one takes the cost *internalisation* approach then the imperative is to develop the closed-loop production system (recycling of the wastes within the system itself, and not comig out as a by-product) in the country of origin itself. However, the generators and

**Table 1: Country-wise Documented Toxic Waste Trade, 1990-1993**

*Unit: Metric Tonnes*

| Exporter/ Importer | Australia | Canada | UK | USA | Germany |
|---|---|---|---|---|---|
| Bangladesh | 165 | - | 7 | 3146 | - |
| India | 34312 | 109380 | 8116 | 1779282 | 2338 |
| Pakistan | - | 290 | 5128 | 6885 | - |
| Indonesia | 13680 | 511 | 1563 | 20490 | 620 |
| Malaysia | 239 | - | 3780 | 325 | - |
| Philippines | 27235 | 57 | 1111 | 35932 | 50 |
| South Korea | - | 7330 | 28719 | 3016496 | 19 |
| China | 604 | 8868 | 3600 | 220665 | - |
| Singapore | 170 | - | 2001 | 71 | 240 |

*Note: - means data not available*
*Source: The Waste Invasion of Asia: A Greenpeace Inventory, Greenpeace Toxic Trade Campaign, January, 1994*

**Table 2: Various Schemes of Toxic Waste Exports from USA to South and Southeast Asia**

| Destination | Scheme | Year | Type | Exporter | Pretext | Status | Quantity |
|---|---|---|---|---|---|---|---|
| Bangladesh | Metal Fertiliser | 1992 | Fertiliser Mixed With Copper Smelting Furnace Dust | Stoller Chemical Company | Fertliser | Active | 3130 mt |
| India | Rad Waste-2 | 1989 | Radioactive Waste | Unknown | Midnight Dumping | Unclear | - |
| Pakistan | Bergsoe | 1987 | Hazardous Waste | Bergsoe Metal Corp. | Unclear | Unclear | - |
| Indonesia | Texatek Int. | 1992 | Plastic Waste | Texatek Int. | Recycling | Active | Two Containers |
| Malaysia | Plastic Pellets Industry | 1993 | Plastic Waste | Unknown | Recycling | Active | - |
| Philippines | Plastic Philippines | 1991 | Plastic Waste | First Asia Trading | Recycling | Active | 9240 mt |

*Note: - means unspecified*
*Source: As in Table 1*

the traders of toxic wastes normally take the easier route of cost *externalisation* through exports of hazardous toxic wastes.

The problems are further aggravated if toxic wastes are exported for the purpose of recycling from a country with higher standards to a country with lower standards. Developing countries, in general, do not have requisite technical and institutional capacities for environmentally sound management and disposal of hazardous wastes. The situation becomes even more problematic if exports of hazardous wastes destined for recycling are subject to less strict rules than exports for the purpose of disposal.

**Waste Trade: Causal Empiricism**

At the 1989 Lome Convention, 69 African, Carribean and Pacific countries agreed to prohibit imports of all wastes into their countries. However, many of them have not yet ratified the Convention.

Be that as it may, shut out from those regions, international waste traders began the search for WIMBY sites to pursue their objectives.

In 1986, only three countries prohibited waste imports; today this has risen to 103. Instead of wastes heading for destinations in Africa and the Carribean that were common in late 1980s, primary regions now targeted by international waste traders are Asia and Eastern Europe (see Table 1).

In 1990s, in the face of rising public opposition, waste trade business has changed its "pretext". The latest trend is to disguise waste trade deals as "recycling" proposals.

Recycling implies an environmentally sound activity, but not in the context of toxic wastes. Even if the recycling scheme involves some form of legitimacy, this type of trade represents a dangerous loophole resulting in cross-border movements of toxic wastes.

The "recycling pretext" is an easy way out to disguise economically motivated toxic wastes exports. Thus, "recycling" represents a "vent for poison" from developed countries' point of view. Indeed a costly vent from the viewpoint of developing countries (see Table 2).

The shift in structural composition of destination of exports was mainly due to the fact that South East Asian governments were responding to citizens' concern about increased "reverse-dumping" (see Table 3). However, this does not mean that South East Asia has become free from toxic waste trade and the shift towards recycling is evident from the two tables.

**GATT/WTO vs MEAs—Compatibility!**

In the context of waste trade, an area of ambiguity is the distinction between 'useless' and 'useful' products or secondary raw materials. This becomes relevant while analysing the compatibility between international legal instruments dealing with toxic waste and free trade as perceived under the GATT.

The issue of compatibility, or incompatibility, between Multilateral Environmental Agreements (MEAs), such as Basel Convention, and the GATT/WTO treaty is therefore to be analysed under the politico-economic perspective of "free trade vs. fair trade".

Countries which are parties to both accords have particular interest in harmonisation between trade and environmental aims.

However, there are problems in the relationship between MEAs and the GATT/WTO. The former introduces restrictions on international transfer of certain substances for environmental reasons, while the latter generally prohibits non-tariff barriers on products traded (Article XI of the GATT 1994 Agreement).

Analysis of the question of compatibility or incompatibility can be based on two trade-related MEA principles: export measures and import measures.

First, on export measures, the parties to an MEA have to take "required" measures to ban either partially, or completely, exports of hazardous wastes or other wastes, unless prior notice is given. This condition can be interpreted as the right to embargo, and this can be incompatible with GATT/WTO.

Second, on import measures, the parties shall exercise their right to ban imports of hazardous wastes or other wastes with a view to their elimination, by informing the exporting party. To prove its compatibility with the GATT/WTO rules, it must comply, in its application, with the clause of most favoured nation and that of national treatment. These two are hypothetical interpretations of the GATT text if applied to the MEAs.

**Table 3: US Waste Exports to South and Southeast Asia**

*Unit: Metric tonnes*

| Targeted Country | Waste Type | 1992* | 1993 | Percent Change |
|---|---|---|---|---|
| Bangladesh | Plastic Waste | 49.4 | 67.7 | 37.0 |
| India | Plastic Waste | 3974.7 | 7841.8 | 97.3 |
| | Lead Ash | 983.7 | 916.9 | -06.8 |
| | Scrap Batteries | 0.0 | 14.5 | - |
| Pakistan | Plastic Scrap | 115.8 | 260.5 | 125.0 |
| | Lead Scrap | 0.4 | 6.2 | 1450.0 |
| Indonesia | Plastic Scrap | 5352.7 | 43.0 | -99.2 |
| Malaysia | Plastic Scrap | 234.7 | 212.5 | -9.5 |
| | Lead Scrap | 493.1 | 133.8 | -72.9 |
| Philippines | Plastic Scrap | 6161.1 | 5764.2 | -6.4 |
| | Scrap Batteries | 513.2 | 300.3 | -41.5 |
| | Lead Scrap | 0.0 | 31.6 | - |

*Note: * Data from January to July only; - means percent is not calculated*
*Source: Multinational Monitor, December, 1993*

The WTO Committee on Trade and Environment (CTE) has flagged environment and sustainable development issues into the debate on trade and environment. One area of particular focus in the CTE's discussion has been the relationship between WTO provisions and trade measures applied pursuant to an MEA. According to GATT/WTO, the preferred approach for governments in tackling transboundary environmental problems is through cooperative and multilateral action under a single MEA.

The entire gamut of debate on mutual compatibility between the MEAs and WTO with respect to trade in hazardous wastes is based on one fundamental assumption: *Ex-ante*, where the debate assumes hazardous wastes as "products". However, any product can be *good* as well as *bad*.

**Waste Trade Re-visited**

Evidence shows that public awareness on the harmful prospects of waste trade in developing countries is increasing due to:

- speedier communications,
- access to information,
- satellite television,
- donor support (both private and concerned countries),
- civil society cooperation (international and national),
- extensive media coverage, and
- public interest litigation.

Thus governments are forced to respond. This is now making it very difficult for Western waste traders to pursue un-interrupted and unchallenged waste trade.

Realising the inevitable end to the policy of easy dumping and the myth of the "recycling pretext", TNCs have, of late, resorted to a circuitous route to continue their outrageous business of trade in hazardous wastes. Hence shifting the polluting sources where one can i.e. dirty industries.

Shifting of polluting industries or transfer of obsolete technologies by TNCs is mainly due to two reasons:

- the advent of new and more efficient technology outdating the older ones
- stringent environmental laws at home (NIMBY syndrome)

The second cause forces businesses to spend a lot of money on safe waste disposal, and businesses do not want their profits to dip. The above mentioned reasons can, at best, be regarded as that of TNCs' viewpoints. The real reason behind this shifting of dirty industries or technologies can be found in the context of global political economy only.

Concrete data on this phenomenon is difficult to obtain. They are fudged as businesses often disguise them. However, several instances of transfer from the North to the South have been documented by several sources (see Boxes 4 and 5), including Greenpeace. (The long-drawn futile efforts of UNCTAD in developing codes of conduct for transfer of technology, and regulation of TNCs, are enough evidence to buttress our contentions).

The destinations are either Latin America, or Asia, or Eastern Europe. One notable exception is Africa. This is a little perplexing; once again to quote Summers: "Just between me and you, shouldn't the

**Box 4. Dirty Migration: The WIMBY Syndrome**

- Nine potentially hazardous investments from Germany to India had taken place between 1991 and 1994. Notable among them was investments in the azo-dye industry, according to the Public Interest Research Group, India (1997). The paradox is that azo-dyes are now banned for use in the export-oriented textile and leather sectors because of German pressure.
- World's leading chlorine manufacturer, Oxychem's Executive Vice President, Charles Stewart, was quoted in 1993, saying that the international production of chloro-alkalies is shifting from the North to the South. During 1994-97, according to Greenpeace, 26 units—new and old—to manufacture chlorine and its by-products have come to India.
- Dansk Sojakagefabrik Industries of Denmark shipped a mercury cell chlor-alkali factory to be relocated in Pakistan in 1991. The Danish company wanted to avoid costly disposal fees, while providing Pakistan businesses with cheap electricity. Pressure from environmentalists forced Ravi Alkalies to abandon the scheme. Following this Denmark also legislated a ban on such venture exports.
- Following pressure by British health and safety executives, Thor Chemical Holdings shifted their mercury plant from Margate, Kent to Carte Ridge, Natal, South Africa in 1987. The facts were uncovered in April 1997, when twenty Zulu workers received compensation of $2mn by suing Thor in UK for having been poisoned by working in the mercury plant.

World Bank be encouraging migration of dirty industries to the LDCs...I have always thought that underpopulated countries in Africa are vastly underpolluted." Our answer: has the indicator of development changed from per capita *food availability* to per capaita *pollution absorption!*

Perhaps the shift in investments—good or bad—is due to the sovereign fact that FDI travels mainly to countries which *inter alia* have a *market*.

**The Logic of Shifting**

The logical approach to shifting of dirty industries is based on the politico-economic concept of "triangular diplomacy". One arm of the triangle represents interaction between different governments—that of Northern and Southern countries; the second between Southern governments and TNCs; and the third between TNCs and local companies. Therefore, Southern countries and TNCs represent the joining chords of the triangle.

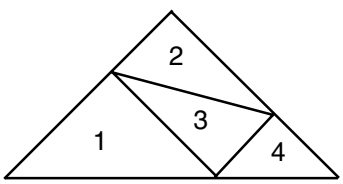
The political economy behind transfer of polluting technologies can be found from the position of Southern countries in the triangle. The weak bargaining position of the South is due to following factors (bargaining positions are represented by the respective areas of the triangles; the greater the area the more will be the bargaining strength):

- in the case of government-government interaction their position is weak inherently.
- as world business becomes increasingly oligopolistic through mergers and takeovers, the Southern companies have to play the role of *followers*.

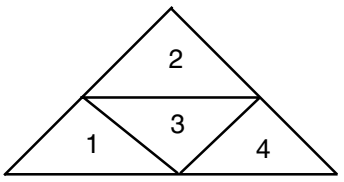
In the first diagram, position of the Southern governments is weak *ex-ante*. This is because they have the triangle with smallest area. However, the opposite is true for TNCs; their position is strong. At the same time, Northern governments and Southern companies have equal position (triangles with same area).

Now, what will Southern governments and companies do? They will try to improve their position within the domain of global political economy.

One way of doing that is through raising the bargaining power, and thus improve their position (as shown in the second triangle—ideal situation). However, there is a short-cut method also—adopting the WIMBY strategy in coalition with the NIMBY strategy.




Present Situation




Ideal Situation

1 Transnational Corporations
2 Developed Country Governments
3 Local Companies
4 Developing Country Governments

**Box 5: Classic Example of the WIMBY Syndrome**

**Cleanest and Safest Nylon Plant in the World: Du Pont**

When synthetic Nylon 6, 6 technology lost out to steel radials in the West, E.I. Du Pont de Nemours—the largest chemical multinational in the US, decided to shift their outdated 1938-fabricated nylon plant to Goa, a province in western India in 1987 in partnership with an Indian company.

Some contradictions on their claim of being "safest and cleanest":

- the production technology is unknown, and the process uses several hazardous chemicals: Hexamethylene diamine and Adipic Acid, which are flammable, toxic and may be carcinogenic:
- the mandatory Environmental Impact Assessment was not conducted;
- appropriate measures regarding critical areas of groundwater protection, waste water treatment, solid waste recycling and air pollution control were not considered; and
- most shockingly, in spite of a Bhopal gas tragedy--spurred liability law, the Government of India indemnified Du Pont against any claims due to an accident.

Following pressure from a strong citizens' backlash in Goa, Du Pont shifted the plant to Tamilnadu, a state in southern India. While the Indian partner also retired, and now Du Pont is 100% owner.

This is a typical example of the WIMBY syndrome operating at the national—and the sub-national—level in India.

**Shifting of Dirty Industries--Empirical Evidences**

Here, the hypothesis is that if "pollution havens" exist is it possible that capital could flow towards those regions with the weakest environmental regulations, i.e. the *race-to-the-bottom*.

According to Esty and Gentry (Esty, D. C. and B. S. Gentry, *Foreign Investment, Globalisation and Environment* in *Globalisation and Environment: Preliminary Perspectives*, OECD, Paris, 1997), there are examples of companies actually dismantling outdated production facilities in industrialised countries, and moving them to developing countries (the NIMBY strategy). However, the anecdotal evidences also suggest that certain kind of enterprises, such as the town and village enterprises (mostly in the informal sector where the bargaining position of workers is further weak) of rural China, are particularly likely to seek used (high-polluting) equipment from industrialised world. They accept outdated equipment because they are under-capitalised, and becase these equipment are cheap (Esty, D. C. and R. Meldensohn, *Powering China: The Environmental Implications of China's Economic Growth*, New Haven: Yale Centre for Environmental Law and Policy, 1995).

However, it is not true that the NIMBY and WIMBY are isolated matters. The following example will clear the point that they are in fact complementary to each other (see also the last paragraph of the above section). Xing and Kolstad (Xing, Y. and C. D. Kolstad, *Do lax Environmental Regulations Attract Foreign Investment?*, Paper presented to National Bureau of Economic Research Workshop on Public Policy and the Environment, Cambridge Massachussetts, 1996) examined foreign direct investment between 1985 and 1990 in 22 countries (seven developing and 15 developed) by the US chemical industry, the US electrical machinery industry, and the US non-electrical machinery industry. Their

analysis showed that more lax environmental regulations in a host country were significantly correlated with the US chemical industry FDI, but not with the other industries which pollute less than the chemical industry. Furthermore, their results indicated that more relaxed the environmental regulations in the host country, the more likely that country was to attract the investment capital of the US industry.

**CONCLUSIONS**

Increasing cost of waste disposal and the unmanageable quantity of generated waste is compounding the problem. Furthermore, the "responsibility-shirking" NIMBY strategy by the North—aided by the WIMBY syndrome of the South—leads to the policy distortion of unregulated toxic trade in the form of toxic dumping, often under the pretext of recycling.

Developing countries, caught in the vicious cobweb of unstable trade, unsustainable debt burden and conditional aid, remain in a weak bargaining position to stop toxic waste trade. The problem is attenuated due to ignorance or a blind approach.

Increasing public awareness and various regional initiatives to stop wastes exports pushed the "merchants of poison" to look for new destinations and pretext to continue trade for recycling. This is particularly evident in Southeast Asia and South Asia.

Non-governmental organisations are instrumental in raising public awareness regarding trade in hazardous wastes or DPGs. However, business has found another route, in the form of transfer of dirty technology and obsolete plants, to continue making profit. This has also come into the domain of activism.

On the other hand even governments close their eyes. The causes behind the transfer of dirty technology can be found in the dynamics of global political economy. The position of developing countries is weak in this too.

The politico-economic perspective of free vs fair trade became apparent with the setting up of the WTO. Fundamentally, the conflict between objectives of GATT/WTO and MEAs is related to the weightage to be given to free and fair trade. To achieve the goal of *global* sustainable development, the objectives of MEAs and WTO should be compatible, not overlapping. And where there is no MEA, it should be wrought.

## Recommendations

**To Governments:**

- **Revive, and conclude the discussions on the codes of conduct for transfer of technology and regulations of TNCs**
- **Incorporate suitable binding provisions on business in the proposed international frameworks for investment**
- **Enact, and enforce, a comprehensive national law compatible with MEAs to ban intrusion of hazardous wastes in the national territory**
- **Create an effective and participatory institution to monitor FDI involving dirty technology, and regulate it wherever necessary**

**To Business:**

- **Increase R & D activities for invention and innovation of close-loop production technology to reduce wastes at source**
- **To understand and recognise the social costs associated with waste trade, and that value for people is complementary with and as vital as value for money**

**To Civil Society:**

- **Research and advocate at different levels to expose the menace associated with international trade in hazardous waste and transfer of dirty technology/industry**
- **Organise people on the issue of sustainable consumption patterns, which will thus impact unsustainable production patterns**

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***Note: For discussions on domestically prohibited goods, please see CUTS Briefing Paper No.8/September, 1996 (Revised, January 1998): The Circle of Poison—Unholy Trade in Domestically Prohibited Goods***



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