STOP TOXIC TRADE!
Demand a Toxic-free Asia

Basel Ban

The United Nations Environment Program (UNEP) estimates that 90 per cent of the world's hazardous waste is generated by the rich economies of the Organisation for Economic Cooperation (OECD). As a way of avoiding stringent and expensive environmental and safety regulations at home, most OECD countries have exported their waste problems to poorer, developing countries where regulations are lax or non-existent and workers are exploited. In 1992, the UK exported more than 80,000 tonnes of toxic waste to developing nations and Eastern Europe. In the early 1990's, the United States, Germany, the Netherlands, and Japan have sent shipments of hazardous wastes to Asian countries mostly in the guise of recyclable materials. In 1996, Australia has exported more than 8500 tonnes of toxic waste, including old car batteries, zinc and copper ashes, to the Philippines and India.

The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, was designed to stop wealthy countries of the OECD from exporting and directly dumping their toxic waste to poorer developing countries. In 1995, Parties to the Basel Convention amended the treaty to put a stop to the practice of trading in hazardous wastes from OECD to non-OECD countries for the purpose of recycling. Throughout the negotiations, Greenpeace exposed various waste trade schemes, documented illegal traffic and monitored the shift in the patterns of waste trading from direct dumping to sham recycling.

Despite the adoption of the Basel Ban, the shipping industry continues to engage in an insidious form of toxic trade: the practice of sending old vessels for scrapping in Asia. The Basel Convention defines ships for scrap as "contaminated metal scrap" unless they are cleaned of hazardous substances.

Shipbreaking: Toxic trade in disguise

Of the approximately 45,000 ocean-going ships in the world, about 700 are taken out of service every year. At the end of their sailing life ships are sold so that the valuable steel - about 95% of a ships' mass - can be recovered. In the early 1970s shipbreaking was a highly mechanised industrial operation carried out in the shipyards of Great Britain, Taiwan, Mexico, Spain and Brazil. But as the cost of upholding environmental and health and safety standards in developed countries has risen, shipbreaking has increasingly shifted to poorer Asian states. To maximise profits, ship owners send their vessels to the scrapyards of India, China, Pakistan, Bangladesh, the Philippines, and Vietnam where health and safety standards are virtually ignored and workers are desperate for jobs. Well over 100,000 workers are estimated to be employed at shipbreaking yards world-wide.

By 1993, half of all ocean-going ship were scrapped in China. At the end of the 1990s, most (70%) are scrapped in India.

All old ships contain hazardous substances like asbestos, lead paint, heavy metals and PCBs. When ships are manually dismantled is it unavoidable for workers to come into contact with toxic substances. Most ships being dismantled today were built in the 1970s, prior to the banning of many hazardous substances. Large amounts of asbestos were used, paints containing cadmium, lead oxide and zinc chromate anti-corrosives, as well as antifouling paints containing mercury and arsenic.

Depending on their size and function, scrapped ships have an unladen weight of between 5,000 and 40,000 tonnes (an average of 13,000 t). 95% of which is steel, coated with between 10 and 100 tonnes of paint containing lead, cadmium, organotins, arsenic, zinc and chromium. Ships also contain a wide range of other hazardous wastes: sealants containing PCBs; up to 7.5 tonnes of various types of asbestos; several thousand litres of oil (engine fuel, bilge oil, hydraulic and lubrication oils and greases). Tankers additionally hold up to 1,000 cubic metres of residual oil. In Europe, these materials are subject to special monitoring and highly regulated disposal. Most of these materials are already defined as hazardous waste under the Basel Convention. In Asia, old ships containing these materials are being cut up by hand, on open beaches and under inhuman working conditions.
Poisons Or Poverty

Tens of thousands of migrant workers endure hard physical labor and permanent danger for one or two dollars a day working in the shipbreaking yards of Asia. Not registered by name, they are difficult to identify. They work in shifts in highly cramped conditions and mostly without safety equipment. An average of 360 deaths a year are reported from Alang alone. Causes of death are explosions, fire suffocation and falling steel beams and plates. The corpses are incinerated at the place of work, far from their families, and forever anonymous. Workers know nothing of the insidious risks to their health through breathing toxic fumes and asbestos dust both on the job and in their sleeping quarters close by. Commonly occurring illnesses are considered a matter of fate. Unprotected handling of substances found in old ships is known to cause a wide range of complaints.

1. Asbestos dust causes formation of scar-like tissue resulting in permanent breathing difficulties (asbestosis). In the longer term, cancer of the lungs and the thin membrane surrounding these organs (mesothelioma) may result.
2. Lead accumulates in the blood and bones after inhalation or ingestion. It can cause anemia and is toxic to the nervous system and to the kidneys.
3. Arsenic exposure can result in lung, skin intestinal, kidney, liver and bladder cancers. It can also cause damage to blood vessels. Inflammation of nervous tissue caused by arsenic can result in loss of feeling or paralysis. Disfiguring growths may also appear on the skin of exposed humans.
4. Chromium contained in some chrome-based chemicals (chromates) can cause eczema and respiratory disease in people exposed to dusts and fumes, including cancer of the lung.
5. Organotonins (TBT, TBTO and TBTCL) are nerve toxins that accumulate in the blood, liver, kidneys and brain. TBT is acutely poisonous, and is also genotoxic. In shellfish, organotonins affect the endocrine (hormone-producing) system causing damage to reproduction.
6. PAHs (polycyclic-aromatic hydrocarbon compounds) can cause various cancers, including cancers of the lung and the scrotum. Some PAHs can cause cell damage and mutation. Exposure can also suppress the immune system.
7. Dioxins are potent carcinogens and suppressors of the immune system and are accumulated in body fat tissue. In addition they are suspected of prenatal and postnatal effects on the nervous system of children. In animal studies they have been shown to reduce sperm production.

Alang, India

In 1998, Greenpeace sent investigators to the world’s largest scrapping site for ocean going ships in Alang, India, where they witnessed appalling worker conditions and mass environmental pollution: workers routinely removing carcinogenic asbestos with their bare hands; toxic materials being dumped in the sea or on nearby agricultural land; workers torch-cutting ship steel into small pieces, inhaling the toxic fumes of lead paints. Greenpeace laboratory analysis of seawater, sediment and soil samples from around Alang (showed that the region is becoming increasingly contaminated. Residual oil inevitably pollutes the sea. Materials and objects containing asbestos are widely distributed around the country as waste and for reuse.

Cebu, Philippines

The shipbreaking yard in Cebu in central Philippines caters mostly to Japanese owned and operated ships. Subsidized by the Japanese government, the Cebu shipbreaking operation has been linked to PCB and TBT contamination in the marine environment close to the scrapping yard. Workers in the facility also report handling stripped insulation materials which could contain asbestos without any means of protection whatsoever. Open fires and burning of waste oils and scrap materials including plastic coated cables are also standard and usual practices inside the yard. The shipbreaking facility also illegally operates a crude incinerator without the benefit of any pollution control. Ash from these burning operations are reportedly strewn around the place.
Jiangyin, China

Greenpeace investigated a shipbreaking yard in Jiangyin, near Shanghai in 1999 and observed dangerous and irresponsible handling procedures for ship parts with insulation material of asbestos like fiber structures. While the workers extracting the insulation materials were observed wearing protective clothing, their working zones were not separated or marked off against those of other workers - proving that the asbestos problem is not really taken seriously. Asbestos-like material was also seen strewn around the yard. In the torch cutting area, workers were without proper breathing apparatus and were obviously being exposed to toxic vapors and falling ash containing heavy metals. Greenpeace tested ash samples from the cutting area and found high levels of arsenic, lead, cadmium and chromium - pollutants which can disperse and accumulate in the yard, in the nearby rice fields and possibly reach the residential areas and the Yangtze River. Small uncontrolled smoldering fires were also observed in the scrapping yard.

Bangladesh

Greenpeace also investigated the shipbreaking yard near Chittagong in Southern Bangladesh, which is emerging as a paradise for shipbreakers. The country that is heavily dependent on ship breaking for its domestic requirement of steel, does not enforce any restrictions on the shipbreaking industry for environmental and workers' safety. There is virtually no monitoring body equipped to enforce basic environmental safety norms or to ensure protection for about 25,000 workers directly involved in ship breaking. The yard mainly caters to large single deck oil tankers, which are generally avoided by Indian shipbreakers in view of the restrictions imposed by Indian authorities.

Greenpeace observed that there was no concept of protective clothing for workers who were involved in extracting insulation materials and paints from ship parts. Though it is difficult to obtain accurate data, the number of accidents and casualty at the Chittagong yard is believed to be the highest in the region. About 20-km long coastal belt where ships are being dismantled is highly polluted with numerous oil spills. Most fisher folks of the region have changed their profession and have either migrated or found an alternative occupation in and around the yard.

Toxic Pathways

Greenpeace has observed that the migration of shipbreaking follows the same global tracks as the movement of hazardous wastes around the globe - it follows the pathway of least resistance. The poorer a country is, the more waste it will get. Ships from the 1970s containing maximum levels of hazardous substances are now being cut up in the inter-tidal zones of Asian beaches without any safety or environmental precautions. All ship-owners from rich EU countries have a hand in this business, and exporting ocean-going ships that have ended their useful lives, to Asia. In doing so, they are breaking the Basel Convention ban on exporting "contaminated metal scrap". This ban has been legally binding in EU countries since 1998. As the shipbreaking practices often violate national law in the importing states, they are illegal on several counts. Shipowners, authorities, brokers and the governments of importing states are ignoring the golden rules of environmental practice which are: reduce, reuse, recycle as much as possible and dispose of harmful and hazardous materials in an environmentally responsible, safe manner. The long-term objective is to avoid the use of toxic materials in the building of ships in the first place. For existing ships, shipowners have the responsibility to decontaminate them and properly dispose the hazardous materials before they are sold for scrapping.
Greenpeace Demands:

Greenpeace is not calling for the closure of the Asian shipping industry. Like other industries, the shipping industry has to comply with the spirit and requirements of the Basel Convention and stop using Asia to escape their responsibility of decontaminating their ships before sending them for scrapping.

No Toxic Trade
Illegal exports of poisons must stop. The Basel Convention bans exports of ships containing hazardous substances from OECD countries to the rest of the world. Legal loopholes must be closed.

Toxics Free Industry
Ships still in operation must be cleaned of hazardous substances when in dock for refitting, repairs, repainting etc, to ensure they are as ‘clean’ as possible when scrapped.

Clean Jobs and Clean Environment
Environment and health-damaging shipbreaking practices must come to an end. Global minimum standards must be enforced for technology, occupational safety, environmental protection and workers’ rights.

Clean Ships
The next generation of ships should be built with as few toxic material as possible and be designed for easy dismantling to avoid health and environmental risks in scrapping. Dismantling and scrapping plans should be drawn up for new ships, stating those risk zones and hazardous materials which remain.