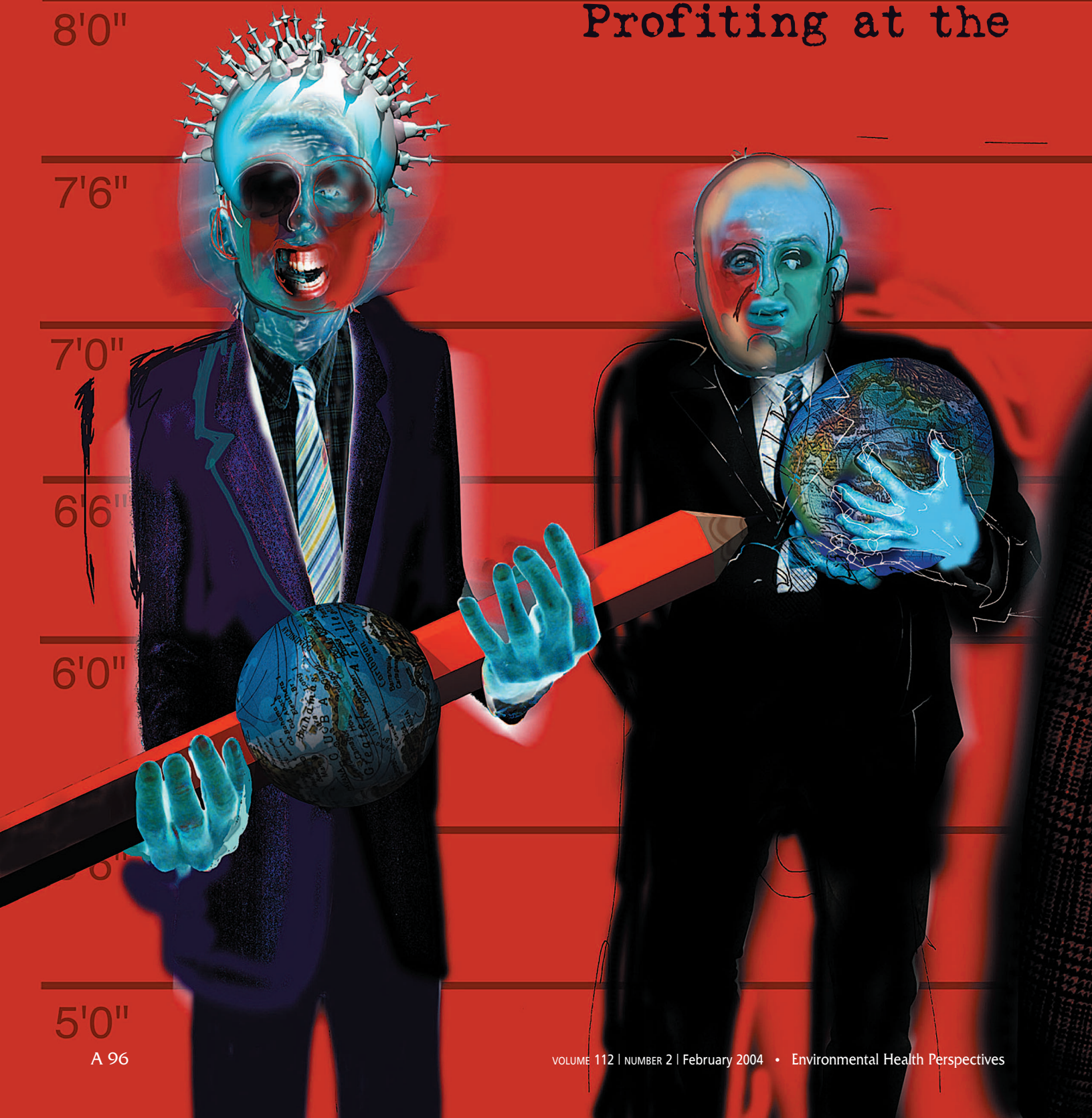
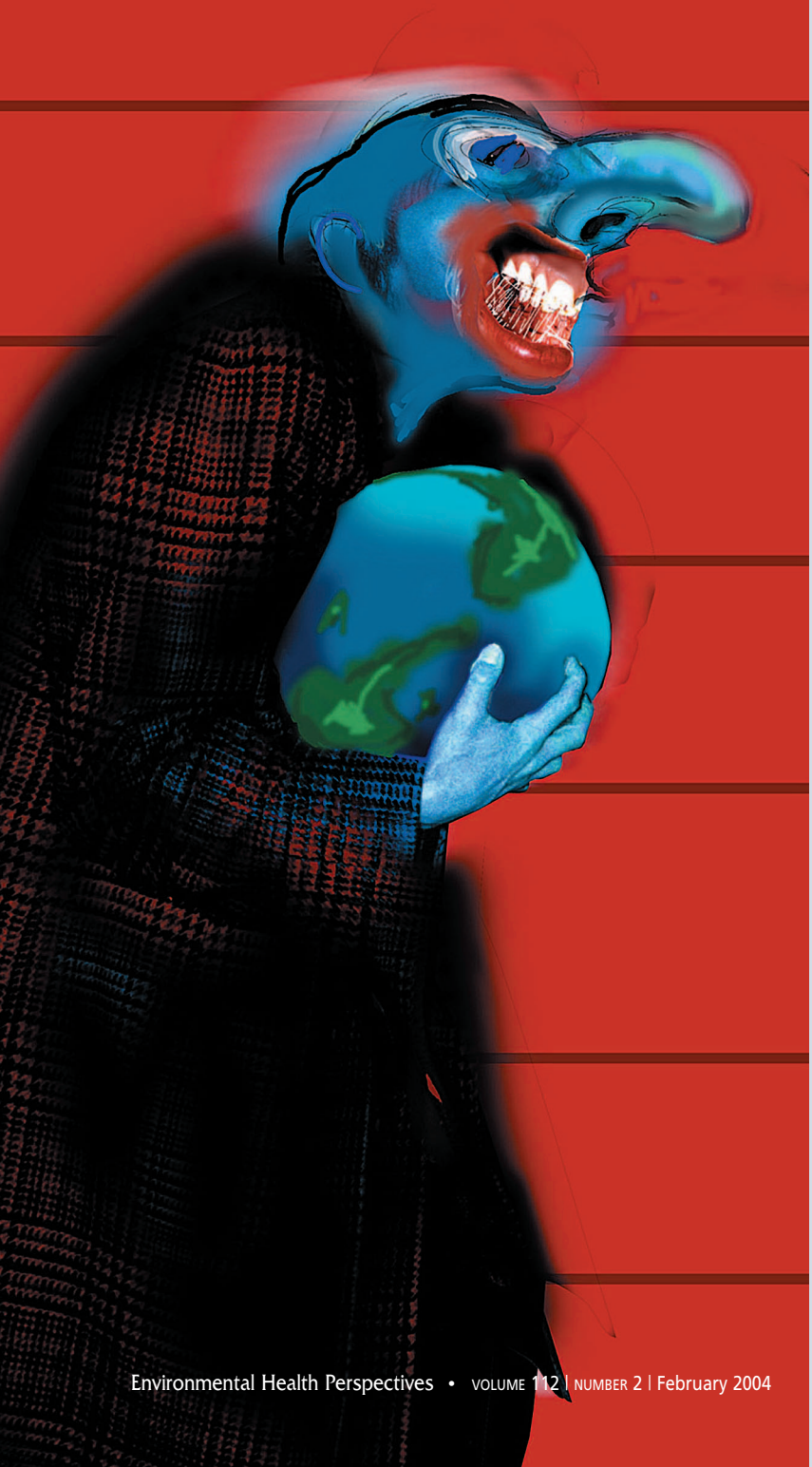
Environmental

Profiting at the



Crimes

Earth's Expense



Daniel Mackie/Digital Vision

Imagine for a moment that it's a hot summer day and you're driving; you roll up the windows in your car and turn on the air conditioning. As chilly air flows from the dashboard, you begin to feel comfortably insulated from the sweltering world outside. If your car was built in or before 1995, this soothing relief may be generated by a coolant called CFC-12, one of several chlorofluorocarbons (CFCs) implicated in the destruction of the ozone layer, a protective layer miles above the Earth that filters out carcinogenic ultraviolet rays.

In fact, CFCs are illegal under both international and domestic rules, unless they've been obtained from used equipment. But millions of cars in the United States still rely on CFC-based cooling systems, and retrofitting cars for safer alternatives is expensive: up to $500 per vehicle. The high cost of conversion has created a demand for contraband CFCs, which are conveniently delivered to the United States and elsewhere by a thriving black market. Contraband CFCs are so pervasive they have at times rivaled cocaine as among the most profitable illegal imports crossing U.S. borders. Meanwhile, illegal trade in these substances delays recovery of the ozone layer, heightening the risk of skin cancer for literally everyone under the sun.

The strong trade in CFCs is but one example of a growing international environmental crime problem. Criminal groups are making millions by trading in environmental contraband, hazardous waste, and endangered species of plants and animals. Still others profit by illegally dumping waste in the ocean or in developing countries, sometimes on behalf of companies eschewing high disposal costs at home.

The International Environmental Crime Threat

Although their effects can be global in nature, environmental crimes most often harm the world's poor disparately. Contraband waste, for instance, is usually dumped in underdeveloped countries that lack the legislative and technical controls needed to protect vulnerable populations. Duncan Brack, an associate fellow at the Royal Institute of International Affairs (RIIA), a London-based international research group, says that in some countries, environmental crimes erode state authority and contribute to a culture of lawlessness.

Brack points out that certain regions of Honduras, for instance, have been abandoned to an increasingly uncivil society, with a violent culture fueled by illegal fishing and logging. "These crimes degrade and in some cases completely destroy the natural resources that many local communities rely on for their survival," Brack says. "Illegal logging, fishing, and wildlife trades are almost invariably carried out at unsustainable levels, running down the natural capital from which poor people derive their livelihoods."

International criminals have latched on to environmental contraband because it generates substantial and often easy profits. A 30-pound cylinder of colorless, odorless CFC-12 bought in China for US$40 can be sold on the U.S. black market for up to $600. Waste dumping can also be lucrative and virtually risk-free—the ocean's sheer size means dumping there can be extremely difficult to detect, and illegal waste imports are widely thought to cross national borders easily, particularly in developing countries, where inspection systems are minimal. According to the most recent published estimates, contained in a December 2000 White House report titled *International Crime Threat Assessment*, illegal dumping generates up to $12 billion worldwide in criminal revenues annually. The endangered wildlife trade is also a financial bonanza for criminals. A single rhinoceros horn can earn one

destitute poacher several hundred dollars, equivalent to a year's salary in some African countries. The same horn, ground up and used as a perceived remedy for impotence and other ailments, can fetch half a million dollars in Asia. Worldwide, illegal wildlife trading generates at least $10 billion a year, according to the U.S. Department of Justice.

Many experts now believe that international environmental crime threatens to become an even greater problem than it already is. According to Durwood Zaelke, who directs the International Network for Environmental Compliance and Enforcement (INECE), a multinational group of enforcement experts based in Washington, D.C., countries are generating more waste than ever, and disposal systems are often unable to meet growing demands. And natural resources of fish, exotic species, and timber are dwindling, which increases the street value of the stocks that remain. Thanks to the forces of economic globalization, contraband including CFCs, endangered species, and toxic waste is flowing through national borders that are disturbingly porous. Indeed, even in the United States only 2% of international cargo shipments receive any inspection at all, much less a thorough search for environmental contraband. A pervasive lack of enforcement also contributes to the growth of environmental crime, especially in developing countries where corruption, poverty, war, and other social problems are perceived as greater and more immediate threats.

Police organizations find that criminals who deal in environmental contraband often display little concern for the risk of capture. "During our investigations, we are often faced with exuberant confidence by smugglers who feel they have nothing to fear," says Alexander von Bismarck, a senior investigator with the Environmental Investigation Agency (EIA), a private organization based in London and Washington, D.C. "Some of them act as if they've stumbled on a gold mine. During a recent undercover meeting, one dealer said, 'This is better than drug smuggling.'"

Shortcomings of Multinational Treaties

Today, the battle against international environmental crime is waged through a system of multinational treaties addressing nearly every conceivable aspect of environmental protection. But despite their noble intents, nearly all of these hundreds of "multilateral environmental agreements" (MEAs) lack effective enforcement capacity. Zaelke says that many MEA member countries—especially developing countries—don't have adequate institutional and legal frameworks to enforce treaty obligations.

Zaelke points to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), which in 1973 banned the trade of thousands of plants and animals, as a case in point. Only about one-quarter of the 164 CITES member countries are thought to have even the minimum legislation to implement the treaty, Zaelke says.

Explanations for the lack of enforcement are both simple and complex, he says. "It's simple in that it often isn't done at all, as in the case where a country doesn't even pass the national legislation needed to implement a treaty. And it's complex in that there are many reasons for these institutional failures, from a lack of funding, to a lack of political will to follow through on implementation."

Usually, inadequate infrastructure for environmental protection is accompanied by a dearth of knowledge about the safe handling of hazardous materials. Criminals who take advantage of lax controls to illegally dump toxic waste place local populations at serious risk. In December 1998, for example, 3,000 tons of mercury-laden waste generated by Formosa Plastics of Taiwan was dumped in a field near Sihanoukville, Cambodia, allegedly sickening several villagers and sparking a rumor that the material was radioactive. In an ensuing riot, some 10,000 people fled the area, and 8 people were killed. (The waste was ultimately shipped back to Taiwan.)

Mark Measer, a criminal intelligence officer with Interpol, the international police organization based in Lyon, France, says most poor communities who handle these materials have no idea what they're being exposed to. "They don't realize the threats they're facing, and they don't know what protective measures to take," he explains. "In the United States, these materials are all labeled and accompanied with safety procedures. But people in these poor communities usually handle this stuff with their bare hands and without respiratory protection."

The task of investigating and prosecuting environmental crimes in developing countries is extremely challenging, Measer adds. Even where environmental laws exist, local police forces are often uneducated about environmental concerns or influenced by corrupt officials. Prosecution can also be held up by a lack of informed judges. The United Nations Environment Programme (UNEP) is particularly concerned about a lack of training in environmental law among the global judiciary, and has launched ongoing training efforts in this area.

But even an informed judiciary, well-trained investigators, and the political will to promote environmental enforcement can't necessarily prevent illegal trading, which will be exploited by criminals as long as they perceive a demand. CFC trades, for instance, are flourishing despite a ban imposed by the Montréal Protocol on Substances that Deplete the Ozone Layer, which is widely seen as the most successful MEA in existence,

Crime scene. A white rhino in South Africa has been killed for its horn, which could net half a million dollars on the black market.

Left to right: Dave Currey/Environmental Investigation Agency; A Ruwindrijarto/Telepak/Environmental Investigation Agency; Sven Torfinn/Panos Pictures

responsible for an 80% drop in CFC use since the treaty was enacted in 1989. The Montréal Protocol is currently ratified by 184 countries, including the United States, whose own vigorous efforts to enforce it have imposed $40 million in fines and 76 years of jail time.

As of the mid-1990s, some 20,000 tons of CFCs were being traded through black market channels, according to the EIA. The United States has traditionally been the biggest importer, but significant markets exist in Europe and Japan, and are emerging in some developing countries. A worldwide glut of CFCs has kept prices low and delayed efforts to replace the chemicals with nonpolluting alternatives, thereby advancing what many scientists believe is an impending ecological catastrophe—depletion of the ozone layer.

Transit Nations and Illegal Crime

According to von Bismarck, "transit nations" such as Singapore play a key role in illegal trading schemes. Transit nations are midpoints on global trade routes, places where cargo ships stop briefly en route to their final destinations. Singapore is one of the busiest transit ports in the world—nearly 40,000 containers pass through the island state every day.

The country is reputed to be efficient, reliable, and free of corruption, and yet it has emerged as major hub for illegal CFCs and other environmental contraband. Why? "Because transit inspections in Singapore are minimal and because the confidentiality of private business information there is highly respected," von Bismarck says, "brokers can unload cargo, repackage it, and reroute it to new destinations with minimal oversight from customs officials." Thus, transit nations provide opportunities for smugglers to disguise material origins and make paper trails harder to follow.

Julian Newman, an investigator with the EIA's London office, adds that site visits to Singapore-based chemical brokers revealed CFCs were sitting out openly at the brokers' facilities. Says Newman, "Transit controls in Singapore are totally lacking. We found these materials in yards, not in any sort of bonded areas under customs control. The brokers can do whatever they want with it."

In November 2003, the EIA exposed the shadowy world of this illegal trade when it broke a CFC smuggling operation in Singapore. To catch the smugglers, EIA operatives established a phony company they called Hall Global Logistics that claimed to be seeking CFC-12 for South African clients. South Africa is a party to the Montréal Protocol and has enacted an import ban on CFCs. Three companies responded to the EIA's inquiry, but one—Leempeng Enterprise—was particularly experienced in the intricacies of the trade, EIA investigators say. According to its website, Leempeng is a dealer for "all kinds of aerosol and non-aerosol components and parts," and its activities include the export of automotive coolants.

During a series of meetings with EIA operatives, Leempeng executives detailed precisely how illegal CFC-12 shipments to South Africa could be arranged. First, CFC-12 purchased from Chinese merchants would be repackaged in small aerosolized cans deliberately mislabeled as "air-conditioner oil." The cans would be concealed in legitimate shipping containers, whose accompanying documents would be falsified to trick customs agents. Finally, the CFCs would be shipped to a neighboring country and delivered to South Africa through a land border.

On guard. An employee of WWF International looks on (above) as a Malaysian logging company removes a tree from the rainforest near Oyem, Gabon. WWF workers are there to ensure that the logging takes place legally, and that employees of the logging companies and the local population do not hunt wild animals. The hunting of wild animals often goes hand in hand with logging in the rainforest in the Congo River basin, where poachers can take advantage of the infrastructure developed by the logging companies to access and remove animals. Illegal logging such as that in Africa and in Indonesia (left) continues to deplete the world's rainforests, with global climate consequences.

Caught on tape. A video camera records smugglers (right) transporting CFCs that have been illegally brought from Nepal into Calcutta, India; the illegal cache (above) was subsequently seized by the EIA. Smuggling of CFCs constitutes one of the biggest, most lucrative, and most damaging environmental crimes currently taking place.

Hidden in plain sight. A shipment of 30-pound cylinders of CFC-12 is hidden in a private boat that has been seized by customs. Smugglers are often able to act with impunity due to the lack of checks at borders.

According to the EIA, Leempeng executives boasted of their smuggling experience, emphasizing links to personal contacts in multiple countries, including the United States, to which they have allegedly sold several CFC shipments of 25 tons each. The company is now under investigation by Singapore's National Environment Agency, which would not comment for this article.

Disappearing Hazardous Waste

Perhaps no environmental contraband is as mysterious as the tons of hazardous waste that vanish every year into illicit dumps around the world. Included in this vast international waste heap are used batteries, electronic junk, old ships, toxic incinerator ash, industrial sludge, contaminated medical equipment, and military hardware. According to Zaelke, some 300–500 million tons of hazardous waste are known to be produced annually. "Some of it is properly disposed of," he says. "As to the rest, we just don't know what happens to it. We are suspicious that much of it is dumped illegally."

Citing "Italian press sources," the authors of *International Crime Threat*

Top: Environmental Investigation Agency; inset: Debbie Banks/Environmental Investigation Agency; bottom: UNEP

A real waste. Less-affluent nations are often the dumping ground for the 300–500 million tons of hazardous waste known to be produced annually.

Assessment wrote that European crime groups export hazardous waste to countries throughout Europe, Asia, and Africa through a variety of "trash for cash" schemes. According to the report, crime groups in Russia and Japan also capitalize on this illegal trade, which is often linked with money laundering, arms sales, and other illicit activities. The Italian Mafia, which has successfully infiltrated Italy's industrial waste disposal sector, is thought by several experts, including the authors of *International Crime Threat Assessment*, to be heavily involved. The report states that half of Italy's processed waste disappears annually, most of it presumably dumped abroad.

The main treaty that regulates hazardous waste trades today is the Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and Their Disposal. Brokered in 1989 and now ratified by 158 countries, the Basel Convention imposes a system of informed consent on member countries, who must notify importers of impending waste shipments, and also must ensure that disposal methods minimize health and environmental impacts. Further, in 1995 the convention adopted an amendment known as the Basel Ban, which, if enacted, will ban the export of any hazardous waste for any reason from the 29 wealthiest nations of the Organization of Economic Cooperation and Development (OECD) to any non-OECD nation.

According to Jim Puckett, who cofounded and coordinates the nonprofit Basel Action Network (BAN) in Seattle, Washington, criminals can easily bypass the Basel Convention's barriers. The easiest way, and by far the most common, he says, is to simply mischaracterize the waste, for instance, by deliberately mislabeling hazardous waste barrels as containing environmentally innocuous materials. This was the tactic used by the now-defunct Japanese company Nisso, which in January 2000 was caught by the Filipino police trying to dump 2,700 tons of infectious medical waste in the Philippines, disguising it as recyclable scrap paper, when in actuality the waste was full of used needles, syringes, diapers, and other discarded hospital products. Greenpeace International subsequently found that illegal dumping of Japanese medical waste in the Philippines is a customary practice.

Like most other MEAs, the Basel Convention is stifled by inadequate implementing legislation among its members. According to the treaty secretariat, fully one-third of Basel countries are unable to enforce their treaty obligations. Some of these countries lack any ability to prevent illegal waste imports whatsoever. As reasons for noncompliance, countries cite a lack of resources, training, staff, expertise, and public awareness, in addition to lax border controls. Of course, the most noncompliant countries are typically poor and vulnerable not only to illegal waste dumps but also to highly toxic waste delivered for the purpose of "recycling."

The Recycling Problem

According to a 1994 Greenpeace International study, up to 90% of the waste shipped to the developing world is slated for recycling; BAN estimates that figure today may be as high as 99%. Unlike waste headed for disposal, recyclables have some economic value, typically in the form of

Left to right: Jeremy Horner/Panos Pictures; Photodisc

residual metals. Spent lead-acid batteries, for instance, are a source of elemental lead, and galvanic sludges left over from electroplating activities contain nonferrous metals. Environmental problems occur when these materials aren't recycled at all, or are recycled in highly hazardous and polluting operations.

Measer says it's hard to determine if recyclable waste has been handled properly—and therefore legally—within importing countries. Developing nations don't often have the infrastructure they need to track the waste and monitor handling. If the waste is simply dumped, someone would have to report the incident to the proper domestic authorities. But if these same authorities have no ability or desire to investigate the incident, then it will likely go unpenalized, Measer says. Interpol may undertake an investigation, he adds, but only if the importing country requests it. "We can't command the authorities to investigate. We can only respond to requests for assistance," he explains.

In some instances, the challenge of prosecuting recycling crimes has less to do with enforcement capacity than it does with conflicting legal systems among the countries involved. China's cottage electronics recycling industry, which processes much of the world's old computers and television sets, provides a case in point. According to a February 2002 report published by BAN and other advocacy groups titled *Exporting Harm: The High-Tech Trashing of Asia*, this industry poisons villagers and contaminates ecosystems. Electronics are often loaded with lead—cathode ray tubes in outmoded computer screens contain up to four pounds of the toxic metal each. Unprotected villagers are exposed to lead when they strip electronics of anything of value (for instance, copper coils), sometimes by burning the equipment or dissolving it in acidic fluids. China has banned these shipments; they are therefore illegal under both China's own domestic laws and the terms of the Basel Convention, to which China is a party. Even so, according to the report, the shipments still arrive daily, coordinated by Hong Kong brokers on behalf of Western exporters.

Roughly half this waste is thought to come from the United States, according to the Worldwatch Institute, an independent research organization in Washington, D.C. However, under U.S. law, electronics exports are legal—unlike China, the United States is not party to the Basel Convention and therefore has no binding obligation to its terms. Moreover, electronics waste is not considered hazardous under the Resource Conservation and Recovery Act; even if it were, the exports would still be legal under this domestic law because it is destined for "recycling" rather than "disposal."

A Diplomatic Stalemate

This confusing legal morass provides a diplomatic stalemate through which an environmental crime in China can be routinely perpetrated by the United States. Thus far, the United States has refused to

Ill-gotten gains. Every day, thousands of meters of electrical wire are cut open to obtain copper at this recycling station in Guiyu, China. During the night the insulation is burned outdoors, releasing polyvinyl chloride and brominated flame retardants into the environment. Every year Guiyu takes in more than a million tons of computer waste, imported primarily from the United States, Japan, and South Korea. Thousands of local people and migrant workers make their living from the electronics waste, which contains toxic ingredients such as lead, beryllium, and mercury and puts the workers at risk for respiratory and skin diseases, eye infections, and even cancer.

Dieter Telemans/Panos Pictures

ratify the Basel Convention, mainly, says Puckett, because it wants to protect its international recycling industry, which generates billions in annual revenue.

Environmental crime fighters will soon face a host of emerging challenges brought on by developments on the diplomatic front. Several important new treaties are coming into force, each of them banning trade in a host of toxic chemicals. Included among them are the Stockholm Convention on Persistent Organic Pollutants, which will require member nations to reduce or eliminate the production and use of 12 highly toxic compounds, and the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (PIC), which will seek to ensure that companies that export any of a designated set of hazardous chemicals obtain consent from importing nations before the shipments are received. Without consent, shipments of these chemicals can be denied passage through the receiving country's borders.

As they come into force, both these treaties will likely face the same difficulties plaguing MEAs in general: namely, no global enforcement provisions, inadequate border controls, and lack of political will to properly implement the treaties within domestic legislation. At the very least, says Puckett, such treaties should require mechanisms to gather the data to better understand and monitor border shipments.

Richard Emory, a senior attorney at the EPA, is strongly critical of the POPs and PIC conventions. In an article published in the 2002 *Colorado Yearbook of International Environmental Law*, Emory wrote that POPs does nothing and PIC does very little to define national measures and tools for effective shipment tracking and compliance monitoring for hazardous chemicals. Specifically, the treaties merely suggest that member countries "take measures" to ensure that imports and exports are in compliance. What the treaties should—but do not—require, Emory wrote, are definitive documentation systems, such as manifests that identify shipments as regulated chemicals and provide the necessary information to ensure compliance. (Emory refused to be interviewed for this article.)

Jim Willis, who directs the UNEP Chemicals Unit, says some progress is being made in this area. For instance, the World Customs Organization recently announced it would establish customs codes for PIC chemicals and some key Basel Convention waste such as electronics waste, which will facilitate tracking to a degree, he says. "We do seem to be noting progress in the ability of countries to safely manage such chemicals [through the MEA process]," he says. "And the political priority of dealing with the chemicals seems to be increasing." According to Willis, the best way for countries to respond to illegal trade is by ratifying the relevant conventions, implementing the necessary domestic laws, and ensuring that customs agents and other officials are adequately trained.

Chris Stowers/Panos Pictures

While authorities look the other way. These Laotian smugglers unload turtles bound for food in southern China just a few hundred feet from a customs guard post. Even where corruption and complacency are less common, customs officers are plagued by the sheer volume of cargo and a lack of training in how to identify environmental contraband.

In May 2002, the RIIA convened a workshop on environmental black markets in London. The workshop's conclusions, contained in a November 2002 report titled *International Environmental Crime: The Nature and Control of Environmental Black Markets*, emphasize that illegal trade can be curbed if countries are willing to target flagrant violators, increase the use of sanctions and other penalties, encourage compliance through positive incentives, and mandate the use of identifying documents to flag MEA-governed shipments. Stakeholders have also suggested that countries must improve law enforcement coordination and information gathering, preferably through some sort of independent international body.

Along these lines, UNEP recently announced the creation of its "GreenCustoms" program, which was launched in June 2003 [see "Stopping Traffic," p. A89 this issue]. This program aims to improve coordinated intelligence gathering and training of customs agents, who are saddled with monitoring MEA-designated shipments and distinguishing them from the overwhelming volume of international cargo.

These efforts underscore the potential usefulness of international networks that link regulatory agencies, law enforcement officials, prosecutors, nongovernmental organizations, and other stakeholders in an effort to more effectively police environmental crimes. Networks could make it easier to work internationally across a broad spectrum of cultures, languages, legal systems, and governments by creating acceptable environmental standards that the global community can refer to when attempting to hold a country accountable. "A network can raise awareness about a particular enforcement issue and help channel resources to where they're most needed," Zaelke says. "They also can be used to assist countries to develop and implement legislation and coordinate law enforcement strategies across national borders."

Today, environmental crime is an issue that is being intensely studied and dissected, even if efforts to fight it are still largely inadequate. Meanwhile, criminals continue to raise the ante; many of them simply incorporate penalties into the cost of doing business. Stopping these crimes will require officials to wield an ever bigger stick and increase the resources to deal with them. But boosting the capacity to fight environmental criminals is an enormous challenge, one that requires resources, determination, and political will. If environmental criminals are to be checked, then they must be fought with a level of severity at least equal to the ecological threats they pose.

Charles W. Schmidt