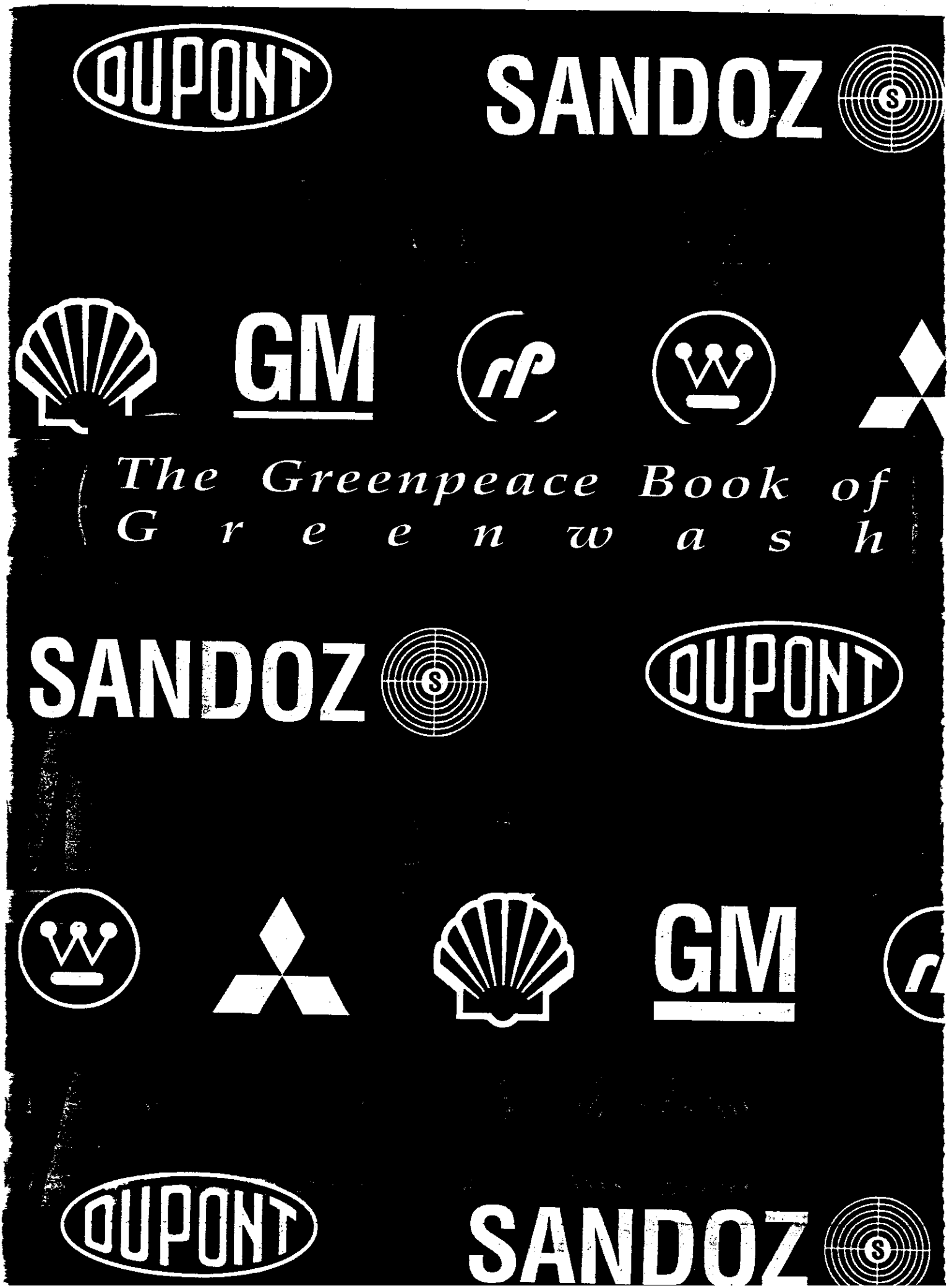
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This paper was written for Greenpeace International by Kenny Bruno, Coordinator of Greenpeace's Hazardous Export/Import Project, with primary assistance from Jed Greer. The author would like to thank Peg Stevenson for editorial assistance; and Kelly Rigg, Jeremy Leggett, Stefan Weber, Abigail Costolloe, Lisa Finaldi, Sandra Marquardt, Bill Barclay, Topsy Jewell, Steve Elsworth, Marcie Mersky, Mary Blake, Jose Augusto Padua, John Willis, Sara Larrain, Irmi Mussack, Gabi Wiener, Lena Hagelin, Nandini Katre, Jim Vallette, Francesco Martone, Naoki Ohara, Patrick Anderson, Sheldon Cohen, Alex Allen, Andy Booth, Peter Grinspoon, Lynn Thorpe, Kim Roos, Tani Adams, Josh Karliner, and Michelle Sheather for their comments on earlier drafts of this paper. Thanks to Kelly Hall for design and production work.

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Greenpeace is an international environmental organization dedicated to protecting the earth and all the life it supports. This report is made possible by more than four million supporters worldwide.

Introduction to Greenwash

"The leadership of the North in the generation of environmentally unsound technologies does not automatically translate into a leadership to generate environmentally sound technologies."

—Vandana Shiva, India [1]

"Industry will have the primary role in making (sustainable development) work. We are the experts at development."

— Edgar S. Woolard, CEO, DuPont, 1990 [2]

A leader in ozone destruction takes credit for being a leader in ozone protection. A giant oil company professes to take a "precautionary approach" to global warming. A major agrochemical manufacturer trades in a pesticide so hazardous it has been banned in many countries, while implying the company is helping to feed the hungry. A petrochemical firm uses the waste from one polluting process as raw material for another, and boasts that this is an important recycling initiative. A company cuts timber from natural rainforest, replaces it with plantations of a single exotic species, and calls the project "sustainable forest development." And these companies, with the help of their business associations and public relations firms, help set the agenda for an unprecedented global negotiation on the crises of environment and development.

This is GREENWASH, where transnational corporations (TNCs) are preserving and expanding their markets by posing as friends of the environment and leaders in the struggle to eradicate poverty.

In 1992, greenwash is going global through the participation of TNCs in the United Nations Conference on the Environment and Development (UNCED) — the so-called Earth Summit. With the cooperation of governments and of leaders of the United Nations, TNCs are working to control the definition of environmentalism and of sustainable development, and to insure that the agreements and programs created by the Earth Summit are shaped, if not dictated, by the corporate agenda. Global corporations have made UNCED a part of their strategy to convince the public that they have turned the corner into a new era of "green business."

This document provides evidence that TNCS have not changed. We trace the phenomenon of greenwash, examine corporate "self-regulation," detail the activities of corporate lobbying groups in the UNCED process, and look at the words and deeds of nine corporations which proclaim their environmentalism.

Among the many findings of this Greenpeace report are: DuPont executives still deny that its lead gasoline additive is harmful; Shell still denies responsibility for pesticide poisonings, Mitsubishi still blames poor people for deforestation; Rhone Poulenc and others defend the export of domestically-banned pesticides. Money spent on so-called "environmental programs" is in reality used for polluting technologies like chemical waste incinerators; proprietary information and "trade secrets" still take precedence over freedom of information and the public's right to protect their health and the environment. And all of these activities appear to be perfectly compatible with the environmental "codes of conduct" that corporations have created for themselves.

In addition, although TNCs are collectively the world's most powerful economic force, UNCED is not addressing their impact on the environment and development crises faced by the nations of the world. Proposals to regulate, or even monitor, the practices of large corporations have mostly been removed from the UNCED documents. In fact the treatment of TNCs at the Earth Summit to date is based on the political posture of industry itself—asserting that northern-based corporations have the know-how and the capacity to spread environmentally sound, sustainable technologies throughout the world. While they proclaim that "corporate environmentalism" is here, TNCs are working to help create a new world order where international agreements and practices will give them unregulated, unparalleled power around the globe.

A look at corporate behavior exposes the reality hidden under the green image being created by TNCs. Despite their new rhetoric, TNCs are not saviors of the environment or of the world's poor, but remain the primary creators and peddlers of dirty, dangerous, and unsustainable technologies. The nine corporations scrutinized in this booklet are a sample of TNCs. They are headquartered in eight countries on four continents, have operations in almost every country in the world and profit from major dirty industrial sectors. Cumulatively, their records give the reader an introduction to the statements and to the substance of typical greenwashing corporations.

A Brief History of TNC Responses to Environmental Problems

Their strategy is to convince the public that they have turned the corner into a new era of "green business."

The heavily publicized environmental orientation of TNCs is a fairly new phenomenon, but it must be understood in a historical context of corporate responses to environmental crises. In the past, corporations have denied problems, avoided responsibility, resisted controls and engaged in "job blackmail," all in response to environmental problems. Some examples are: DuPont and other CFC manufacturers DENIED their role in ozone depletion for over 14 years after scientists first discovered a connection between their product and the destruction of ozone molecules. In the years that they fought to downplay the scientific findings, chlorine built up in the atmosphere, and depletion of the ozone layer accelerated worldwide.[3]

Union Carbide, which ran the Bhopal pesticide plant, has AVOIDED responsibility for the deaths and injuries from the worst industrial accident ever.[4] Similarly, Dow Chemical and Shell Oil have engaged in legal maneuvers for years in a suit against them for manufacture and use of DBCP, a pesticide which allegedly caused sterility in Costa Rican farmworkers.[5]

As a group, TNCs and their political associations have RESISTED laws and proposals for controlling CFC production, hazardous waste disposal, international trade in wastes and banned products, taxes on hazardous substances, cutting of virgin forests, fuel and energy efficiency, and countless other issues, through lobbying, financial contributions to officials who will represent their views in government, and other similar methods.

When denial, avoidance and resistance fail, corporations often resort to JOB "BLACKMAIL." Simply put, they threaten to move production elsewhere if measures they oppose are implemented. Sometimes companies do move, avoiding environmental regulations, employing cheaper labor, and taking a dirty industry to the South in the process.

Avoidance, resistance, and job "blackmail" are still very common corporate reactions to environmental protection and worker safety initiatives. But the sheer weight of evidence of the devastating impact of corporate operations has by now eroded the effectiveness of simple denial.

TNCs could no longer deny their role in environmental degradation.

Greenwash Begins

In the 1970s and 1980s the growth of local citizen movements against environmental degradation in many countries, the emergence of environmental platforms from political parties and Green parties in Europe and elsewhere, and increasing media exposure of environmental problems all contributed to an unprecedented rise in environmental awareness. Public outcry against corporate operations increased as people traced the ozone hole, dying lakes and seas, disappearing forests, the changing global climate and toxic waste dumps scattered around their communities back to decisions made by TNC managers.

By the late 1980s, this popular movement had gained sufficient strength and exposure to become a potential threat to the political power and financial health of TNCs. TNCs could no longer deny their role in environmental degradation. Instead, they embraced the environment as their cause and co-opted its terminology. While little changed in practice, the Greenwash counterstrategy was born.

Since the birth of greenwash, industry has devised a far-reaching program to convince people that TNCs are benefactors of the global environment. More recently — and just in time for UNCED — corporations are working to appear to be proponents of "sustainable development." We are told that while TNCs are making money, they will also be helping poor countries achieve their development aspirations, and insuring the prosperity of future generations.

Greenwash has worked, inasmuch as it has helped corporations distract the public

while they simultaneously fight to stave off measures which would make them liable for their actions and accountable to the people affected by their activities. After the Rhine river spill (SEE BOX) Sandoz simply moved its disulfoton operations to Brazil. DuPont, ICI and other CFC manufacturers have continued to make money from selling ozone destroying chemicals. Shell and Dow have so far escaped responsibility for selling pesticides which allegedly caused sterility. Many of the companies profiled in this paper have paid fines for their actions, but have kept their dirty operations and avoided paying full compensation to victims. In the 1990s, Greenwash has become a powerful tool for TNCs worldwide.

The Greenwashing of Corporate "Culture"

As part of the greenwash strategy, corporations notified the public that there has been a profound change in corporate culture. As a rule, this new concern for environmental image and performance includes a number of specific elements that many corporations present as evidence of their commitment to environmentalism:

* Corporate restructuring to include environmental issues, e.g. environmental officers at high levels, or new environmental departments within a corporation.
* Corporate environmental programs like waste minimization, waste reduction and product stewardship—such as labeling of hazardous products.
* Responses to public concern about the environment; sometimes, these responses take place even when not required by law.
* Environmental themes in advertising and public relations.
* Voluntary environmental policies, codes of conduct and guiding principles.

With the creation of such programs, we are asked to believe that corporations are now something fundamentally different than what they were before. But the addition of an "environmental department" does not change the raison d'etre of a corporation. It is critical that citizen activists and governments look under the surface of such announcements and be aware of the overall context in which they exist. It is clear that certain basic characteristics of corporate culture have not changed.

We are asked to believe that corporations are now something fundamentally different than what they were before.

First, despite their stated commitment to environmentalism, TNCs typically continue to justify their current activities, and new investments, with a cost-benefit assumption which fails to include the vast majority of environmental costs. Measuring only direct costs and short-term profits, corporations tout the benefits of jobs and products created, and marginalize costs of pollution, waste, and long-term damage to people and the environment.

Second, in overseas operations especially, the assertion is often made that the mere presence of the corporation, its products, technologies, jobs and culture are inherently beneficial to the host population. An international waste trader, Arnold Andreas Kuenzler said about a planned hazardous waste landfill in Angola, "If it's good enough for the Swiss, it's good enough for the blacks!"[6] In many cases, corporations further imply that the dirty industries they bring will be the primary method whereby southern countries can gain enough wealth to have the "luxury" of a clean environment.

The assertion is that the mere presence of the corporation is inherently beneficial to the host population.

Third, through aggressive marketing or interlocking relationships with "customers," manufacturers create "demand." Corporations then proceed to abdicate responsibility for problems created by their products by passing responsibility to the users of those products. Responsibility is passed along by intermediate users (such as the automobile industry in the case of CFCs) until it reaches the individual consumer. In the end, individuals are held responsible for production and marketing decisions made by giant corporations. This has even been the excuse for marketing products in the south which have been banned or restricted in the north such as lead gasoline additive, and banned pesticides.

Finally, in their advertisements and slogans, TNCs are increasingly trying to give the impression that they are really in business to help people and to solve environmental problems. DuPont's "Better Things For Better Living," and Dow's "Dow Lets You Do Great Things," are examples. People watching television or reading magazines are seduced into forgetting that the fundamental drive of corporate culture is not improving their lives, but making a profit.

Corporate Codes of Conduct

The codes subtly change the meaning of key words.

As part of their response to environmental problems, many TNCs have adopted "corporate codes of conduct," "guiding principles" and other voluntary environmental policies. Because these codes are offered as evidence that industry is taking its responsibilities seriously and is prepared to respond to citizen demands, they must be closely scrutinized. Some imply that voluntary adherence to a code can replace regulation and monitoring of industry. Skeptical observers of the codes typically charge that while the rhetoric is pretty, practice hasn't yet changed enough. But a close look at the actual text of these codes reveals that even the skeptics are too trusting. Business has not defined the terms "environmentally sound" and "sustainable development." Rather, the codes adopt environmental terminology, while subtly changing the meaning of key words to cover industry behavior. The codes are themselves a form of greenwash.

In the end, the new rhetoric and the acknowledgement of relatively superficial problems in voluntary codes diverts attention from the fundamental environmental issue: products such as nuclear reactors and toxic chemicals form the lifeblood of many TNCs.

Two of the major corporate codes are chemical association Responsible Care Programs, and the International Chamber Of Commerce Business Charter For Sustainable Development, also known as the Rotterdam Charter.

Even the most dangerous products . . . are judged "safe" by Responsible Care signers.

Responsible Care

Responsible Care is the name of the chemical industry's major program on environmental issues. It originated in Canada in 1984 and was adopted in the U.S. as a direct response to the Valdez Principles—a code developed by environmental organizations for corporations following the Exxon Valdez oil spill. All members of the U.S. Chemical Manufacturers Association must sign on to Responsible Care as an obligation of membership. Chemical industry associations in Western Europe have similar programs, and it is a point of pride among many chemical company executives.

The two aspects of Responsible Care that are consistently emphasized by the associations and individual members are a "commitment to continuous improvement" in health, safety and the environment, and the "profound cultural change" it represents.[7]

Responsible Care acknowledges that the chemical industry as a whole has not performed even to its own satisfaction and that change is needed. This gives citizens concerned about company practices some leverage, and is a welcome admission. But there are a number of serious problems with Responsible Care:

*The U.S. Chemical Manufacturer Association's president has stated that Responsible Care will help citizens to track corporations, monitor their performance, and make suggestions. Toward that end, each company is supposed to conduct an annual self-evaluation. However, the evaluations are not available to the public. Without access to information—even that generated by the company itself, the public does NOT have the opportunity to track the corporation any more than they did before Responsible Care.

* Although one of the "Guiding Principles" of Responsible Care is to develop safe products, there are no criteria for what constitutes a safe product. Even the most dangerous products, such as banned pesticides and ozone destroying chemicals are judged "safe" by Responsible Care signers.

* Under the heading "Pollution Prevention Code," Responsible Care has two parts: waste and release reduction and waste management. While waste reduction is desirable, this blithe interpretation of "pollution prevention" makes the phrase meaningless. Waste reduction and management are often forms of end-of-pipe pollution control measures, not preventive measures. Pollution prevention should refer to the avoidance of toxic chemical production, use and disposal in the first place. The text takes waste practices which are responsible for much of the pollution spread by TNCS and legitimizes them as "prevention."

* Responsible Care emphasizes "environmental performance," suggesting that the only thing wrong in the chemical industry is that there are too many "incidents." While a reduction in accidents and spills is vital, it is notable that Responsible Care does not acknowledge the inherent toxicity of many chemical company products and routine emissions. Thus a corporation which increases production of an unnecessary and toxic product can claim to have improved "environmental performance" if they have had fewer accidents in the manufacturing process.

* Responsible Care does not apply to foreign subsidiaries of member companies. Company evaluations do not include overseas operations, and overseas environmental policies are not addressed. Other business charters and some companies are more comprehensive than Responsible Care in this area.

Responsible Care does not acknowledge the inherent toxicity of many chemical company products and routine emissions.

ICC Business Charter For Sustainable Development (Rotterdam Charter)

The International Chamber of Commerce finalized its Business Charter For Sustainable Development about a year before the June 1992 Earth Summit. It contains "Principles for Environmental Management" which are similar in many ways to Responsible Care, but which also add an emphasis on business'.role in creating "sustainable economic development."

The Charter contains revealing clues to the ICC's approach to economics and the environment, with a convenient but unfounded assertion that there is a natural convergence between the needs of environmental protection, sustainable development, economic growth and profitable market conditions for business:

"Economic growth provides the conditions in which protection of the environment can best be achieved.... In turn, versatile, dynamic, responsive and profitable businesses are required as the driving force for sustainable economic development and for providing managerial, technical and financial resources to contribute to the resolution of environmental challenges. Market economies, characterized by entrepreneurial initiatives, are essential to achieving this." [8]

The ICC blithely ignores the experience of Southern countries.

The ICC blithely ignores both the experience of Southern countries and numerous analyses which show that the financial resources generated for the environment by unregulated growth will never catch up with the costs to people and the environment from so much dirty industrial activity. The health and environmental crises along the U.S./Mexican border created by the explosive growth of the maquiladoras is a graphic example.

Similarly, the ICC Charter's definition of the "precautionary approach" is also revealing:

"to modify the manufacture, marketing or use of products or services or the conduct of activities, consistent with scientific and technical understanding, to prevent serious or irreversible environmental degradation." [9]

In fact this definition of the precautionary approach is precisely the opposite of what the principle means—that is, action can and should be taken to protect the environment even in the absence of scientific proof. This definition has been supported by international bodies ranging from UNCED itself to the Organization for African Unity which defines the precautionary approach as "Preventing the release into the environment of substances which may cause harm to humans or the environment without waiting for scientific proof regarding such harm." [10]

Conduct Under the Corporate Codes

The ICC may be content to simply MODIFY production, after scientific proof shows that that production is causing SERIOUS pollution, but the lesson that environmentalists should take from corporate behavior, and from the codes of conduct, is a sobering one. The history of TNCs demonstrates that even where national environmental laws exist, with strong legal and monetary sanctions, serious pollution and irreversible environmental degradation are a part of routine business practice, often with catastrophic consequences. Voluntary codes must be understood in this context.

The ICC's "precautionary approach" would fit DuPont's behavior in the case of

chlorofluorocarbons nicely: the company waited 14 years after scientists first linked CFCs to ozone destruction before they agreed to stop making them. Only after government and corporate scientists fully 'understood' the CFC-ozone layer depletion link in 1992—long after the public reached an understanding—did DuPont agree to 'modify' production, and only then did they replace CFCs with another proven hazardous substance: hydrochlorofluorocarbons (HCFCs).

Greenwash Goes Global: TNCs, the Earth Summit and the New World Order

For TNCs UNCED has yielded unparalleled influence in the United Nations.

For TNCs the UNCED process has yielded unparalleled influence in the affairs of the United Nations. Through the participation of the Business Council for Sustainable Development (BCSD) and the International Chamber of Commerce (ICC), in the Earth Summit, TNCs are working to preempt international measures that would limit their activities and are advancing their agendas on trade and investment. Assisted by the public relations giant Burson-Marsteller, TNCs have dressed these ideas up in green as business' contribution to "sustainable development."

In addition, the TNCs have been aided in their efforts by recent changes within the United Nations itself. Under a restructuring ordered recently by new UN Secretary General Boutros Boutros-Ghali, many UN economic and social programs, including the UN Centre on Transnational Corporations, have lost much of their independence. The changes at the UN are consistent with recommendations made in 1991 by the ultra-conservative US Heritage Foundation, and will weaken the ability of UN agencies to monitor transnationals. [11]

Greenwash Elite—the BCSD

Principal leverage in the UNCED process comes from the BCSD—a tight grouping of some forty-eight chief executives or chairmen who represent industrial sectors including energy, chemical, forestry, and pesticide conglomerates. The BCSD was established late in 1990 at the specific request of UNCED Secretary General Maurice Strong who, since then, has consistently paid public tribute to the "extremely important contribution" which the Council will make in Rio. Strong himself has given meticulous assistance to the BCSD in the presentation of their proposals and helped the council edit "Changing Course" - the centerpiece of industry's submissions at Rio.

The BCSD is chaired by Swiss billionaire Stephan Schmidheiny, whom Strong appointed as his Principal Advisor for Business and Industry. Among his corporate endeavors, Schmidheiny sits on the boards of directors of both Asea Brown Boveri, which is involved in the marketing and building of nuclear reactors, and Nestle, which has been the target of consumer boycotts for its aggressive marketing of infant formula as a substitute for breast milk to women in developing countries. Schmidheiny's family business interests have also included asbestos production in Brazil and Costa Rica. And while his image makers have been promoting his small crafts foundation in Latin America, this venture is microscopic compared to Schmidheiny's 30% interest in Chile's largest steelmaking concern—a polluter whose dust emissions have created both local human health risks and widespread environmental damage.

Despite claims of a "UN Mandate" the BCSD is not accountable to UNCED.

The leadership of the BCSD also sits on the ICC's International Environment Bureau. The ICC has a long history of lobbying the United Nations on behalf of business interests from its seat as an observer organization at the UN itself. It should be remembered that despite the BCSD's claims of a "UN Mandate", Schmidheiny is a personal appointee of Maurice Strong. He and the sophisticated BCSD secretariat are accountable to no-one at UNCED.

The Greenwash Professionals: Burson-Marsteller

One of the BCSD's primary targets at the Earth Summit is the hearts and minds of the global public. To present it's case at the Rio Summit, the BCSD has hired public relations

giant Burson-Marsteller (B-M)—the largest independent PR company in the world. B-M's experience in greenwashing is unmatched:

* In the 1970s when Babcock & Wilcox's global sales suffered after the nuclear reactor it built failed at Three Mile Island, Burson-Marsteller was there to assist its client.[12]
* When A.H. Robins could no longer handle the international public relations woes resulting from the problems with its's Dalkon Shield contraceptive device, they called on B-M.
* In the aftermath of Union Carbide's Bhopal gas disaster, it was Burson-Marsteller who advised on the intricate international public relations details over the years.
* In the wake of the Exxon Valdez oil-spill, Burson-Marsteller was one of a large group of consultants called in to give Exxon expert public relations assistance.

At other times in B-M's forty-year history, it has been governments who have turned to the company for "issues management." During the reign of Romania's Nicolae Ceausescu, Burson-Marsteller was hired to promote the country as a good place to do business.[13] When the former military dictatorship of Argentina was having difficulty attracting international investment, the Generals hired B-M to "improve the international image" of the country over a period during which some 35,000 people were "disappeared."[14] More recently, B-M has served as the lobbyist for the Mexican government, promoting the environmentally questionable free trade agreement between Mexico, the US and Canada.

B-M's glossy brochure takes pride in the professional nature of its greenwash activities; *"Often corporations face long term issue challenges which arise from activist concerns (e.g. South Africa infant formula) or controversies regarding product hazards...Burson-Marsteller issue specialists have years of experience helping clients to manage such issues. They have gained insight into the key activists groups (religious, consumer, ethnic,environmental) and the tactics and strategies of those who tend to generate and sustain issues. Our counselors around the world have helped clients counteract activist-generated...concerns."* [15]

B-M has been the leader in a long tradition of corporate public relations work that has specifically focused on appropriating environmental issues and terminology. And it doesn't come cheap—with B-M the BCSD has also joined a corporate tradition of spending huge resources not on actual environmental change, but on creating a "green image" for the client.

"Our counselors around the world have helped clients counteract activist-generated . . . concerns"
—Burson-Marsteller

Lobbying For Profit at UNCED

In the UNCED process, the combined influence of the BCSD, the ICC, Burson-Marsteller, and their associates is formidable. While the PR handlers are working to convince the public that transnational corporations are environmentally friendly, the BCSD, along with the ICC and a group of mining corporations called the International Council on Metals and the Environment, are working hard to convince governments that not only should they be left alone to regulate themselves, but also that their technology, transferred through free trade and open markets, will save the South from environmental disaster, and will promote so-called "sustainable development."

The ICC pressed hard to keep regulation of the TNCs out of Agenda 21.

In March 1992, during the fourth and final Preparatory Committee (PrepCom) meeting for the Earth Summit, the ICC and its members pressed hard to keep any language calling for regulation of the TNCs out of Agenda 21 and the Earth Charter (the two key documents being produced by UNCED). Aided by the US government and others,the TNCs even went so far as to successfully advocate striking the words "transnational corporation" from many of the texts. In one case the ICC took its fight all the way to Stockholm, where it lobbied the Swedish government to withdraw a proposal it had made calling for TNCs to internalize environmental costs in their accounting and reporting processes, and replace it with the weakened "inviting them (TNCs) to participate in examining the implications for internalizing environmental costs."[16]

Arguing that they have the technology that will allow for "sustainable development" in the South, TNCs have worked throughout the UNCED negotiations for a definition of technology transfer which they call "technology cooperation." "Technology cooperation" is based on US-style patent, copyright and intellectual property rights laws which allow corporations to keep tight control of materials and information as trade secrets, even in cases where the information for developing new technology—such as seed stock or genetic material—comes from sources in the South. Such "technology

cooperation" will insure that the benefits and profits of new technology stay with the corporations, not the country of origin, or the country where it is being developed or tested. Because UNCED has not defined what is environmentally sound technology, "technology cooperation" can actually facilitate the transfer of high risk technologies and polluting industries from North to South.[17] In addition, "technology cooperation" can serve to make Southern countries permanently dependent on capital-intensive imported equipment, spare parts, and skills.[18]

TNCs are forcing an undesirable marriage of unregulated free trade and sustainable development.

Finally, the BCSD argues that economic growth through unregulated free trade and "equitable access to markets for all" is "an essential prerequisite both for sustainable development and for the continuing prosperity of the more industrialized nations."[19] They hold up free trade as a panacea in UNCED, arguing that it will produce enough growth to end poverty, and after that, free up resources for environmental protection.

Historical evidence shows otherwise. Unregulated, trade-led growth has led to overexploitation of land and natural resources, severe ecological degradation including air, water and soil pollution, ozone depletion and global warming, and the creation of a monumental hazardous and solid waste crisis. Increasing economic liberalization often can and does feed private greed at the expense of the public good, creating systems in which the few use up enormous amounts of energy and natural resources, while the many are left impoverished. The resources generated by such growth will never catch up with the problems it creates.

The TNCs have thus linked the outcomes of UNCED to the priorities of unregulated free trade. Maurice Strong himself, in his opening statement at the Prepcom 4 negotiation, called for UNCED to be made consistent with the General Agreement on Tariffs and Trade (GATT). While TNCs lobby in the Uruguay Round of GATT and other free trade negotiations to open more markets and eliminate regulations, they are simultaneously joining with the US, the European Community and Japan, to make UNCED GATT-consistent—thus forcing an undesirable marriage of the concepts of unregulated free trade and sustainable development.

UNCED itself risks becoming greenwash on a global scale.

Through the TNCs work at UNCED, the negotiations to date now threaten to worsen some of the most serious environmental distortions associated with unbridled growth and trade—greater corporate control over local development, downward pressure on wages and worker protection, lowest common denominator global standards for health, safety, and environmental protection, and the erosion of national and international initiatives to protect the environment.

Greenwash Exposed

Even a cursory look at TNC operations clearly demonstrates that in fact TNCs in the chemical, fossil fuel, resource extraction, waste disposal and nuclear industries have thrived on industrial development strategies that are fundamentally unsustainable. Such corporations, along with multi-lateral development banks and bilateral aid agencies, are driving forces behind the dominant development model which emphasizes continual growth in production, Gross National Product, exports, resource extraction, trade and consumption for the rich.

Now they say they have changed. That they are spending money for the environment. That they will regulate and police themselves. That their technologies are safe. That their projects help the poor.

Greenpeace urges you to look critically at their real-world behavior, starting with these nine corporations.

How Big Are They? —The Role of TNCs in Environmental Destruction

MAJOR DISASTERS — The operations of transnational corporations routinely expose workers and communities to an array of health and safety dangers. All too often these operations erupt into disasters. Many large-scale accidents occur outside the corporation's home country, and some involve double standards in environmental, health and safety regulations and enforcement. The most infamous examples include:

Seveso, Italy — A subsidiary of Swiss-based Hoffman-LaRoche set up a trichlorophenol plant for which permits could not be obtained in Switzerland; a 1976 explosion there exposed 156 workers and 37,000 residents to a dioxin cloud. 1

Bhopal, India — A major accident in 1984 at the pesticide plant of U.S.-based Union Carbide's subsidiary led to the death of over 3,500 people, injuries to over 202,000 more, and permanent birth defects to an unknown number of children. 2

Basel, Switzerland — A huge spill of disulfoton and other chemicals into the Rhine in 1986 killed fish, wildlife and plants for hundreds of miles. Swiss-based Sandoz, responsible for the majority of the spill, subsequently moved its disulfoton warehouse to Resende, Brazil. 3

FOSSIL FUELS — TNC activities generate more than half of the greenhouse gases emitted by the industrial sectors with the greatest impact on global warming. TNCs control 50% of all oil extraction and refining, and a similar proportion of the extraction, refining and marketing of gas and coal. 4

CFCs — TNCs have virtually exclusive control of the production and use of ozone-destroying chlorofluorocarbons (CFCs) and related compounds. 5

MINING — In minerals extraction, TNCs still dominate key industries. In aluminum, just 6 companies control 63% of the mine capacity, 66% of the refining capacity, and 54% of the smelting capacity. 6

AGRICULTURE — TNCs control 80% of cultivated land for export crops worldwide, often displacing local food crop production. Twenty TNCs account for over 90% of pesticide sales, and control much of the world's genetic seed stocks. 7

TOXIC CHEMICALS — Large TNCs manufacture most of the world's chlorine — the basis for some of the most toxic, persistent and bioaccumulative synthetic chemicals known, including PCBs, DDT, dioxins and furans, chlorinated solvents, and thousands of other organochlorine compounds. These chemicals' impacts on health include immune suppression, birth defects, reproductive, developmental and neurological damage, damage to the liver and other organs, cancer, and other diseases. 8

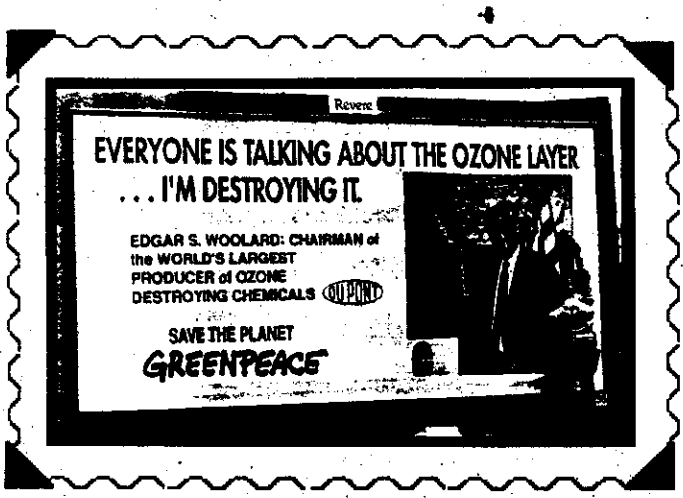
TRADE IN HAZARDS — TNCs as a group lead in the export and import of products and technologies that have been controlled or banned in some countries for health and safety reasons. Some examples: Twenty-five percent of total pesticide exports by TNCs from the US in the late 1980s were chemicals that were banned, unregistered, canceled or withdrawn in the U.S. itself. 9 U.S. and U.K.-based TNCs control nearly the entire world market in tetraethyl lead gasoline additive, a product virtually eliminated in the U.S., Canada, Japan, and Australia, and being phased out in Western Europe due to its well-known contribution to environmental lead contamination and childhood lead poisoning. 10 And a handful of northern companies are responsible for the nuclear technology now found at plants in South America and Asia.

FINANCE — TNC activities involve one quarter of the world's productive assets, 70% of products in world trade, the bulk of international financial transactions and the major share of the world's advanced technology. 11

E. I. DuPont de Nemours and Company

GREENWASH SNAPSHOT #1: DUPONT A case study in ozone destruction, hazardous exports, and toxic chemical pollution.

Headquarters: 1007 Market St., Wilmington, DE,19898 USA tel: 302-774-1000 fax:302-774-7322
Chief Executive Officer (CEO): Edgar Woolard, Jr. salary: $1,338,925
Largest chemical company in U.S.; operations in 40 countries.
Major businesses: chemicals, petroleum, fibers, polymers, coal, pesticides.
Major subsidiary: Conoco.
Major shareholder: The Seagram Co.
Signer of Responsible Care and the ICC Rotterdam Charter ; Member of BCSD



Greenpeace protests DuPont CEO Edgar Woolard's role in ozone layer destruction during the company's annual meeting in April of 1992.

Hold the Applause

DuPont Chief Executive Edgar S. Woolard, Jr. has been credited with inventing the phrase "corporate environmentalism." He has referred to himself as "Chief Environmental Officer", saying "Our continued existence as a leading manufacturer requires that we excel in environmental performance..." [2] In the U.S., DuPont frequently boasts of leadership in health, safety and environmental practices.

DuPont's television advertisement, known as "Applause," shows sea lions clapping, ducks flapping, dolphins jumping, flamingos leaping and whales breaching to a background of Ode to Joy from Beethoven's ninth symphony, while a narrator intones DuPont's announcement that they will "pioneer the use of double-hulled tankers...in order to safeguard the environment." What the ad doesn't tell you: DuPont's double-hulled tankers were not in the water when the ad ran, the full fleet won't be double-hulled until the year 2000, and the sea lions, otters, penguins and seals depicted in the ad do not live in the Gulf of Mexico where the first tankers will operate. [3]

DuPont's commandeering of images of beautiful wildlife and sounds of rousing music in a desperate attempt to create an impression that they are environmentalists is understandable;the company is the world's leader in ozone destruction, one of the last producers of lead gasoline additives in the world, and, in the U.S., number one in toxic waste generation. [4]

World Leader in Ozone Destruction

DuPont is the inventor and world's biggest producer of chlorofluorocarbons (CFCs)—the primary chemicals responsible for ozone depletion.

Stratospheric ozone protects life on earth from harmful ultraviolet radiation. The United Nations Environment Program (UNEP) conservatively estimates that the current level of ozone depletion will cause at least 300,000 additional cases of skin cancer, including malignant melanomas, and about 1.5 million additional cases of cataracts annually. Human immune system suppression, damage to crops and decreases in the phytoplankton population at the base of the marine food chain are also highly likely. [5]

A look at DuPont's history with the CFC and ozone issues is the most telling evidence of the company's Greenwash efforts:

1928—DuPont/GM scientists invent CFCs.

1974—Scientists link CFCs to ozone destruction. DuPont pledges to stop production if proof is found.

1975—White House Task Force finds CFCs "cause for concern." DuPont warns against "acting without the facts."

1978—U.S. Environmental Protection Agency (EPA) and Food and Drug Administration (FDA) ban non-essential CFC aerosols. DuPont continues selling CFCs for aerosols abroad.

will lead to 16.5% ozone loss. DuPont says: "All ozone depletion figure to date are based on a series of uncertain projections."

1981—NASA satellites confirm ozone decline. DuPont discontinues most research on CFC alternatives.

1985—Scientists discover ozone hole over Antarctica. DuPont expands CFC production in Japan.

1987—Scientists confirm CFC role in Antarctic ozone depletion. DuPont says: "We believe there is no imminent crisis that demands unilateral regulation."

1988—Scientists report ozone depletion over temperate zones. DuPont announces phase-out of fully halogenated CFCs, but without a firm timeline.

1989—Ozone damage over Arctic reported; Helsinki Declaration orders phase-out of CFCs by 2000, Hoechst Company announces 1995 target date for unchlorinated CFC substitutes. DuPont lobbies against faster phase-out of CFCs.

1990—Germany announces 1995 CFC phase-out date. DuPont receives "stratospheric protection award" from U.S. EPA.

1991—With new data, U.S. EPA projects 200,000 additional skin cancer deaths and 12 million skin cancers over 50 years from increased ultraviolet radiation. DuPont blocksshareholder resolution calling for phase-out by 1995.

1992—Inevitability of northern hemisphere ozone hole confirmed. DuPont buys full page ad in the New York Times saying "we will stop selling CFCs as soon as possible," but only "in the U.S. and other developed countries." [6] —adapted from "Hold the Applause" [7]

DuPont has advertised and marketed its substitutes for CFCs—hydrochlorofluorocarbons (HCFCs) and hydrofluorocarbons (HFCs)— as "environmentally enlightened." But the reality is that these gases are also threats to the global atmosphere. HCFCs are themselves ozone depleters and greenhouse gases, while HFCs are potent greenhouse gases. According to one researcher, HCFCs are 3-5 times as destructive to ozone as originally claimed by DuPont. [8]

DuPont Won't Get the Lead Out

There is a clear, direct link between environmental lead contamination and brain damage, especially in children. Even low levels of blood lead can cause decreased intelligence, learning disabilities, reduced memory, and behavioral disturbances.

DuPont is the inventor and one of the last remaining producers of tetraethyl lead (TEL) gasoline additive, a product which has been virtually eliminated from use in the U.S., Canada, Japan and Australia because of its well-known contribution to environmental lead contamination and to childhood lead poisoning. Despite the restrictions on lead additive in the North, DuPont continued to produce and export TEL from New Jersey until 1991, when declining sales and a stricter lead discharge permit forced an end to production. Today, DuPont still owns 40% of TEMSA, a TEL producer in Coatzalcoalcos, Mexico. Mexico has one of the worst lead contamination problems in the world.

"Lead in Petrol: The Mistake of the 20th Century."
—Dr. Carl Shy, World Health Organization 1990 [9]

"Today we have one gasoline for the rich countries, and another deadlier gasoline for less industrialized countries."
—Dr. Mario Epelman, Greenpeace Argentina, 1991 [10]

"Because of the narrow streets and overcrowding in urban areas, because of the prevalence of dusts both indoor and outdoor, because of poor nutrition and health, poor hygienic conditions and the preponderance of pregnant women and children, the populations of developing countries are much more susceptible to the hazards of environmental lead contamination."
—Dr. Jerome Nriagu, Nigerian scientist, 1991 [11]

"We can expect lead toxicity to be truly epidemic among children in urban centers in many countries in the Third World."
—Professor David Schwartzman, Howard University, 1991 [12]

"If we thought (TEL) was a hazard, we wouldn't export it. We don't export hazards."
—Dr. Carl Hutter, DuPont Product Manager, 1991 [13]

DuPont and Hazardous Wastes

Despite its vaunted environmental leadership, DuPont remains one of the largestproducers of toxic wastes on the globe. Worldwide, it is estimated that DuPont and its subsidiaries are emitting 1.6 million pounds of pollutants every day, or 584 million pounds per year.

In 1989 alone DuPont and its subsidiaries discharged over 348 million pounds of toxic chemical pollutants into air, land, and water in the United States. [14] The company is the U.S. leader in deepwell injection of toxic wastes, dumping 254.9 million pounds in 1989. DuPont has contaminated 2 groundwater aquifers under its Chambers Works plant in New Jersey and is paying millions of dollars as part of a consent decree for cleanup. [15] From 1968 to 1987, DuPont dumped an estimated 50,000 to 100,000 tons of acid wastes every year off the Delaware and New York-New Jersey coasts.

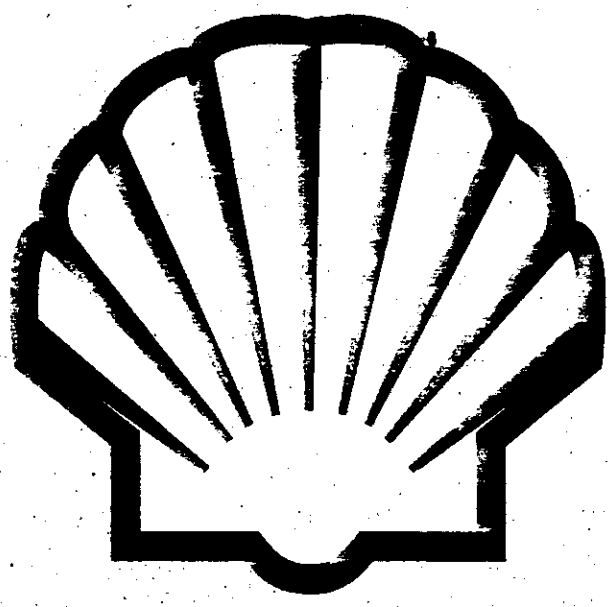
In March of 1991, the area around DuPont's Quimica Fluor plant in Matamoros, Mexico was deemed so toxic that the Mexican President ordered 30,000 people to give up their homes in order to create a 2 mile buffer zone around the site. Quimica Fluor has paid $2.16 million to nearby farmers whose crops were damaged by toxic releases. [16]

"It's easy to talk a green line these days; it's still hard to walk one."
--Ed Woolard, Dupont CEO, 1991 [17]

Royal Dutch/Shell Group

GREENWASH SNAPSHOT #2: ROYAL DUTCH/SHELL A case study in global warming, oil pollution, and pesticide poisoning.

Shell HQ: Shell Centre, London SE1 7NA, U.K.,tel:44-71-934-3856 fax: 44-71-934-8060
Royal/Dutch HQ: 30 Carel van Bylandtlaan, 2596 HR The Hague, NV. tel:31-70-377-4540
fax: 31-20-377-4848
Chairmen: L.C. van Wachem, Sir Peter Holmes (salary: $942,260)
Major subsidiary: Shell Oil Company (Houston, Texas U.S.)
Signer of the ICC Rotterdam Charter ; Member of BCSD



The World's Largest Oil Company

In 1990, Royal Dutch/Shell made more profits than any company in the world. It has operations in over 100 countries, owns 400 million acres of land in 50 countries, employs 137,000 people, has annual sales of over $100 billion, and $9 billion in cash reserves. 1 Shell's operations range from eucalyptus plantations in Thailand, Latin America and Africa, to bauxite projects in Brazil.

With gross revenues of over $102 billion in 1991 — bigger than the gross domestic products of most countries, Shell could be a powerful force for a transition to sustainable energy systems and economies all over the globe. Instead this mammoth concentration of resources is primarily dedicated to the world's largest unsustainable industry: OIL.

It's a matter of survival, it's that simple.

Shell, The Precautionary Approach, and Global Warming

The burning of oil is responsible for about 40% of the energy- related carbon dioxide added to the atmosphere annually, and oil production and consumption contributes to about 26% of greenhouse gases. Shell activities, which include handling about 8% ofthe world's oil and natural gas, account for approximately 3% of the human contribution to CO2 emissions, without counting their interests in coal and other greenhouse gas sources2

The possible consequences of global climate change include changes in rainfall patterns, rising sea levels, disruption of food sources, mass extinction of species, and flooding of coastal plains and islands which could force millions of people from their homes. Diplomat Robert van Lierop of the Pacific island nation of Vanuatu put it, "It's a question of survival, it's that simple. At the very least, sea level rises of a foot or so would wipe out island ecosystems. At worst, whole islands could disappear under water." 3

The magnitude of the threat from continued dependence on oil is monumental in the best-case scenario, and unimaginable in a worst-case scenario. In theory, the Shell Group recognizes the threat from global warming and the need for changes in the oil business: "Shell companies...believe that there is enough indication of potential risk to the environment (from global climate change)...to start to adopt precautionary measures." 4

Yet despite this ostensible commitment to a precautionary approach, Shell plays an aggressive role in the drive to develop the world's 1 trillion barrels of known oil reserves and the search for the world's unlocated 750 million or so barrels—investing nearly $842 million in research and development during 1990. The company will not disclose how much it allocated for biomass or solar research, as opposed to the traditional businesses of oil, natural gas and coal. But Shell does say that it invested $5 billion—more than three quarters of its net earnings that year—on new oil exploration ventures in Algeria, Guatemala, Kenya, the Philippines and Yemen. 5 Shell justifies this type of investment with:

"World energy needs will likely require a better than 50 percent increase in the fossil fuel production rate over the next 40 years..." 6

In the context of their role in oil development and global warming, Shell's emphasis on "environmental performance" and their embrace of "precautionary measures" is pure greenwash. The company also continues to support an industry lobby group in the US, the Global Climate Coalition, which has stated that "existing scientific evidence does not support actions aimed solely at reducing or stabilizing greenhouse gas emissions." 7

Apparently, Shell feels that global warming is a serious issue where it's own investment is at stake—in 1990, the company's Norwegian unit A/S Norske reported it would add a meter to the height of the North Sea Troll gas platform to take account of projected sea level rises from global warming. 8

Shell invested $5 billion in 1990 on new oil exploration ventures.

Oil Production Means Oil Pollution

At every stage of the oil life-cycle—exploration, production, transportation, manufacturing and consumption—there are enormous damages to the environment. A quick look at some of Shell's most recent experience is telling:

* In May 1988, seven Shell employees were killed at an explosion at the company's Norco, Louisiana refinery. Shell has paid at least $24 million in damage claims. 9

* In April 1988 a spill of 440,000 gallons of crude oil at Shell's Martinez, California refinery polluted over 100 acres of wetlands and 11 miles of shoreline, killing hundreds of animals and costing the company $20 million in penalties and $12 million in cleanup bills. 10

* In 1989, a Shell refinery in the United Kingdom spilled 10,000 gallons of crude oil into the Mersey River. Shell was fined $1.6 million and paid another $2.24 million for cleanup costs. 11

* In the fall of 1989, a Shell tanker spilled enough oil near the island of St. Lucia in the Caribbean to cover Bannes Bay for two weeks. The company refused to indicate publicly how it planned to prevent such accidents in the future, but it did participate in an anti-litter campaign as part of St Lucia's Heritage Week. 12

The threat from continued dependence on oil is monumental.

The DBCP Case

Shell Oil is a co-defendant in one of the most important hazardous chemical export liability cases ever. For over two decades, Shell supplied a pesticide containing dibromochloropropane (DBCP) to Standard Fruit Company for use in banana plantations. Shell had known since the 1950's that DBCP causes sterility in male laboratory animals, but did not include this information on product labels. Even after the US EPA determined that DBCP caused sterility in humans and banned production, Shell continued to market the chemical.

After suffering exposure to DBCP, between 500 and 2000 banana workers in Costa Rica became sterile and today continue to face higher cancer risk. Depression, alcoholism, suicide, and divorces have all increased among the banana workers since their exposure to DBCP. 13

In 1991, 101 of those workers filed suit against Shell and Dow Chemical, another manufacturer of DBCP. In response, the companies pleaded "forum non conveniens", arguing that it is too inconvenient to hear the Costa Ricans' case in the United States. A Texas court has denied the motion, and Justice Lloyd Doggett of the Texas Supreme Court wrote of Shell's legal maneuvers that "what is really involved is not convenience but connivance to avoid corporate accountability." 14 The case is pending.

Overall, Shell is the world's tenth largest pesticide manufacturer, and the inventor and only producer of endrin, dieldrin, and aldrin—three of the "dirty dozen" hazardous pesticides. Each of the "drins" has been banned in over 35 countries. 15

"Anyway, from what I hear they could use a little birth control down there."
—Clyde MacBeth, former Shell scientist, 1989 speaking about the Costa Rican DBCP sterility case. 16

Mitsubishi Group

GREENWASH SNAPSHOT #3: MITSUBISHI GROUP: A case study in tropical deforestation.

Ordered split up by the U.S. after World War II, Mitsubishi Group consists of about 160 separate companies with interlocking ownership. Unless otherwise noted, here Mitsubishi refers to Mitsubishi Corporation, the Group's trading company. Other important Mitsubishi companies are Mitsubishi Heavy Industries, Mitsubishi Electric, Mitsubishi Bank, and Mitsubishi Kasei (Chemical).
Group Chairman: Yohei Mimura
Headquarters: Mitsubishi Shoji Kabushiki Kaisha, 6-3 Marunouchi 2-chome, Chiyoda-ku, Tokyo 100-86, Japan Tel: 81-3-3210-2121 Fax: 81-2-3287-1321
Member of the BCSD

Mitsubishi Groups's businesses range from chemicals to nuclear technology to finance. Mitsubishi Kasei is Japan's largest maker of polyvinyl chloride (PVC), with plants in dozens of countries. Kasei's Malaysian joint venture Asian Rare Earth was ordered by a Malaysian court to clean up after people sued the company for gross negligence in the storage and handling of radioactive waste from their mining operation. Mitsubishi Heavy Industries and other Mitsubishi companies and joint ventures have built fourteen nuclear reactors in Japan, sold nuclear technology to China and are bidding on nuclear reactors for Indonesia. As of early 1992, Mitsubishi Bank held 186.3 billion yen in debt from "less developed countries". [1] But it is the logging operations of this giant complex of corporations that has generated outrage around the world.

"In practical terms, no commercial logging of tropical moist forests has proven to be sustainable from the standpoint of the forest ecosystem, and any such logging must be recognized as mining, not sustaining, the basic forest resource."
—L. Talbot in World Bank Paper, 1990 [2]

Mitsubishi In Malaysia

"In practical terms, no commercial logging of tropical moist forests has proven to be sustainable from the standpoint of the forest ecosystem, and any such logging must be recognized as mining, not sustaining, the basic forest resource."—L. Talbot in World Bank Paper, 1990 [2]

Mitsubishi is a leading destroyer of tropical rainforests, with operations in Chile, Bolivia, Brazil, the Philippines, Canada, Papua New Guinea and Malaysian Borneo. The Malaysian operation, in Sarawak State, is the most notorious. Mitsubishi owns 30% of Daiya Malaysia, which has been logging it's 90,000 hectare timber concession at a rate that will eliminate the area's forests within twelve years. [3]

Rapid deforestation and destruction of their homelands have fueled a strong protest movement against forest cutting by indigenous peoples of Sarawak including the Penan, Kayan, Iban, Kenyah, and Kelabit groups, and an international campaign including a boycott of Mitsubishi Group consumer products. Those protests have not ended Mitsubishi's destructive role in Sarawak, but instead have inspired some bizarre greenwash by the company.

Mitsubishi Corporation's Environmental Affairs Department was immortalized in a comic book they funded and aimed at Japanese high school students. The comic follows the career of a middle-level executive named Hino, who travels around the world to find out the truth about Mitsubishi and rainforests after reading criticism of the company's practices. Not surprisingly, Hino ends up believing that shifting cultivation and poverty are the true cause of most deforestation, that local people want this kind of development anyway, and that Mitsubishi's critics are engaging in Japan-bashing. After coming under fire from environmentalists in Japan and internationally, the comic book has now been withdrawn from circulation by Japan's Department of Education.

Mitsubishi's Myths

In more serious forums, Mitsubishi has put forth these same misleading arguments. The company says that "most deforestation is linked to shifting cultivation..." But research in Sarawak by S.C. Chin, a Malaysian botanist who spent over ten years studying

shifting cultivation; has shown that the typical family only cuts about 2 hectares per year, and that indigenous peoples as a whole are responsible for clearing about 72,000 hectares each year. It is estimated that only 5% of this is virgin forest. Logging companies log around 450,000 hectares of primary forest annually. [4]

Mitsubishi claims that by felling only 4-6 trees per hectare they are practicing environmentally sound, selective logging by which the forest remains intact. Yet Chin estimates that even with this kind of operation, 40% of the trees in each hectare are destroyed. [5]

Mitsubishi claims that forestry is essential to Malaysia's development aspirations employing 55,000 people and earning hard currency. But benefits from the sale of timber concessions are dwarfed by the fact that 90% of timber revenues are earned in the importing country, and most indigenous forest dwellers do not work directly in logging. [6]

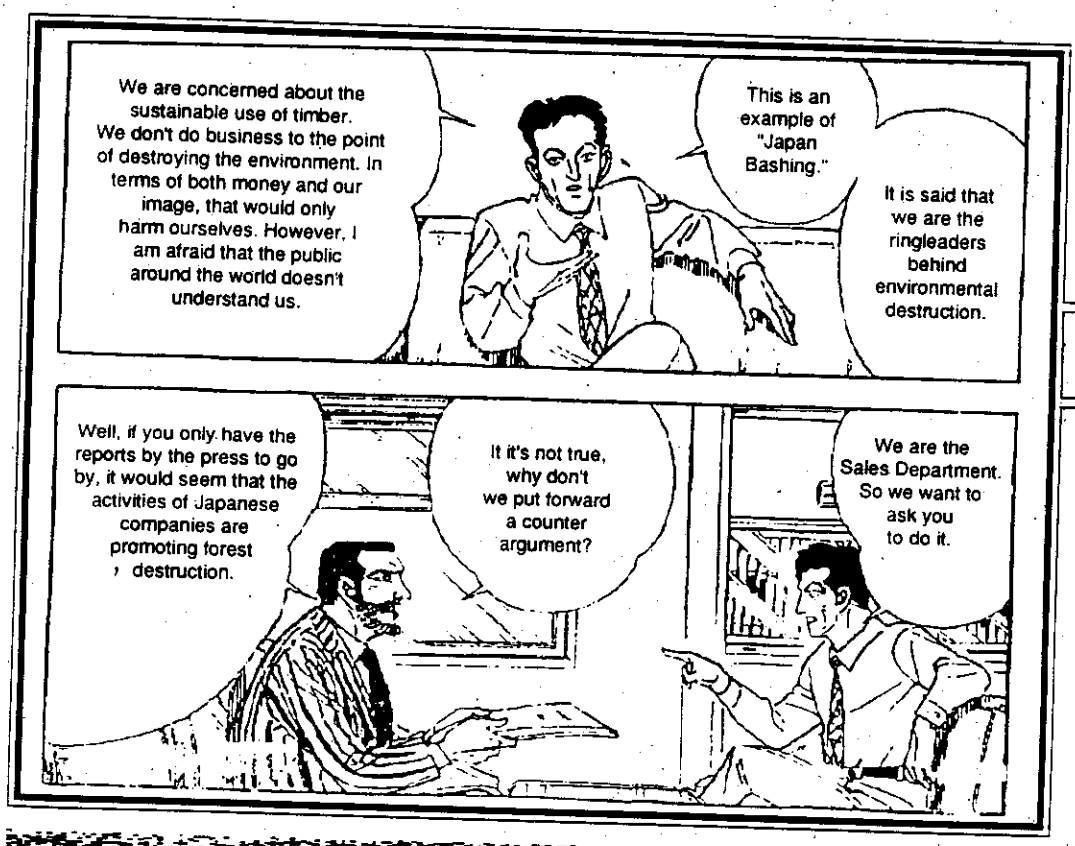
While claiming that they are not causing the extensive deforestation in Sarawak, Mitsubishi has also pressed for the arrest and prosecution of native people for disrupting logging activities in Sarawak with blockades.

Mitsubishi's timber operations span the globe. In Chile, Mitsubishi joint venture Forestal Tierra Chilena Ltd. is growing eucalyptus for export to pulp mills in Japan. [7] In Bolivia, Mitsubishi's joint venture Industria Maderera Suto Ltd. produces high-quality sliced veneer for export to Japan. In Canada, Mitsubishi owns a 30% interest in Crestbrook Forest Industries, which through Alberta Pacific plans massive clearcuts in Alberta's boreal forests, over the opposition of indigenous people, foresters, and environmental groups. [8] In Papua New Guinea, Mitsubishi funds United Timbers, which was investigated by a royal commission of inquiry and accused of breaking forestry laws and hiding profits from their operations. [9]

Mitsubishi downplays their role in tropical timber trade. But if one includes figures for Meiwa trading, which is controlled by Mitsubishi Keiretsu and Mitsubishi Corporation, and calculates imports of sawnwood and plywood as well as logs in roundwood equivalents, Mitsubishi/Meiwa was Japan's second largest importer of tropical timber in 1990. [10]

90% of timber revenues are earned in the importing country.

"Much wasteful log use around the world is the result of local peoples' need to survive—and we cannot blame them for this."
— Kyosuke Mori, Mitsubishi Corporation, 1991. [11]



Mitsubishi's comic book on rainforest destruction was distributed in Japanese high schools until withdrawn by the Department of education.

Solvay and CIE

GREENWASH SNAPSHOT #4: SOLVAY A case study in the greenwash myths of incineration, recycling, and export.

Chairman: Daniel Janssen
Headquarters: Rue du Prince Albert 33 Brussels, Belgium tel.: 0032-2-509-6111
Solvay has operations in over twenty-four countries and is the world's 4th largest chlorine and polyvinylchloride manufacturer
Signer of Responsible Care and the ICC Rotterdam Charter

Solvay bag in among plastic wastes at a "recycling" facility near Jakarta, Indonesia. The facility manager estimates that up to 40% of imported plastics ended up in a local landfill.

The Myths of Incineration

"During 1990, we placed increased importance on recycling of waste products in our factories. A unit for burning chlorinated waste products yielding hydrochloric acid and energy, has been operating successfully for over a year...It has also been shown that the salts produced in neutralizing the smoke from incinerating domestic waste, can be recycled; as a result, these incinerators have become a viable, non-polluting option." —Solvay Report

That short excerpt, from a section called "Protecting the Future," in Solvay's 1990 annual report, is rich in greenwash myths.

The practice of "recycling" chlorinated wastes which Solvay describes in such glowing terms is in fact a dangerous form of waste incineration. While Solvay boasts that these "units (yield) hydrochloric acid and energy," they neglect to tell the reader that burning chlorinated wastes will also yield new chlorinated compounds, including dioxins, furans, and countless others, some of them more toxic than the original wastes.

As for yielding energy, Solvay's main businesses—the production of caustic soda and polyvinyl chloride (PVC) for plastic manufacture have nothing to do with recycling, but they are huge consumers of energy. Heat from waste incineration is captured to supply that energy demand, but the heat recovered from burning is a tiny fraction of the resources contained in many materials. Incineration usually wastes more energy than it recovers. In the end, the process creates air pollution and toxic ash while permanently destroying materials, some of which could be safely recycled or reused.

Solvay's claim that incinerators have become "a non-polluting option" is sheer nonsense; to ascribe this miracle to the fact that salts, which are a small fraction of the incinerator effluent, can be recycled, is ridiculous. Finally, it should be noted that any "recycling" of salts from incinerators is for the purpose of using them in the dirty process of chlor-alkali production (SEE BOX).

The Myths of Plastic Recycling

Perhaps no other word has been as abused by corporate environmentalists as "recycling." To recycle—to use again and again—is understandably popular: when properly done, it reduces demand for raw materials, reduces pollution and waste, and saves and, space, and money. It holds an important place in the movement for environmental awareness since it is often the single easiest thing the average person can do to avoid creating environmental problems. But dirty industries, especially the plastics and waste disposal industries—have appropriated the language of recycling by applying it to processes which do not in any way accomplish the true purposes of recycling. They have taken public enthusiasm for recycling and used it to cover dirty operations. This form of greenwash is one of the most common.

Solvay boasts that its group "has found many new ways of encouraging the recovery of plastic...the material is reused in the manufacture of other products such as pipes, fencing and security barriers." [2]

Solvay's scheme for plastic recycling deserves a hard look before receiving a green stamp of approval. The most important purpose of recycling is to reduce demand for raw materials. But recycling plastic usually involves conversion of used plastic into a totally new product, such as the pipes and fences mentioned by Solvay, and also plastic park benches, plastic flowerpots; and even disposable diapers. This form of recycling actually creates markets for plastic products and for plastic waste and does nothing to reduce demand for virgin plastic.

Behind Solvay's apparent enthusiasm for plastic recycling lies an unpleasant economic reality. A document leaked to Greenpeace reveals that Solvay's PVC recycling is not economic. [3] While the company stressed the importance of plastic recycling programs to consumers for public relations purposes, Solvay dumped plastic bottles that they collected from the public in containers labeled "Recycle", together with its own PVC wastes, in a landfill in Jemeppe-sur-Sambre in Belgium. Nonetheless, the company got an environmental award for recycling of plastic bottles.

The Myths of Export for Recycling

Solvay has also "recycled" waste by sending it abroad. In the 1980's, at least 26 companies including Solvay, ICI and Bayer sent mercury wastes to Almaden, Spain for eventual recycling. The mercury recycling plant was never built, and the wastes were eventually buried in central Spain, next to a bird sanctuary.

Many operations which export materials for recycling are a cover for waste producers. Most common are schemes to send wastes from wealthy countries to relatively poor countries, where the pollution from dirty recycling operations is unknown or unmeasured. Back home, the company may take credit for its environmental initiative, or even for "waste reduction."

Export for recycling is one of the major loopholes in agreements to limit the international trade in wastes, and one of the stumbling blocks to enforcing agreements to stop such trade.

Solvay is one of many chlor-alkali companies which have recently expressed interest in central and eastern Europe. Their proposals there should be examined with a skeptical eye so that the greenwash myths they have promoted do not facilitate the creation of yet another waste dump or incinerator masquerading as "sustainable development."

Chlorine, PVC and Development

Solvay Chairman Daniel Janssen is also chairman of the European Federation for Chemical Industries, whose subcommittee— the EuroChlor Federation works to promote the advantages of chlorine in a modern society.

Chlor-alkali producers (of which Solvay is one) divide salt into caustic soda and chlorine, both of which are used in a large number of industries. Chlorine is at the root of many modern-day environmental problems. Ozone-depleting CFCs, pesticides like DDT and PCP, banned industrial chemicals like PCBs, groundwater contaminants like chlorinated solvents, by-products like dioxins and furans, and literally thousands of other hazardous chemicals get their toxic and persistent qualities from the presence of chlorine. [4]

When combined with hydrocarbons, chlorine produces a class of chemicals called organochlorines. Organochlorines tend to be toxic, persistent and bioaccumulative. In the environment, they will concentrate to toxic levels, eventually affecting ecosystems on a broad scale. In humans, they can cause reproductive failure, birth defects, impaired fetal and childhood development, cancer and neurological damage.

Regardless of pollution control attempts and "environmental performance improvements" chlorinated compounds will build up in the environment to toxic levels. Such hazardous effects make it clear that environmentally sound development cannot include production of chlorinated chemicals.

Yet chlorinated compounds and products, in particular polyvinylchloride (PVC) and plastics in general are hailed as important for economic growth and a high standard of living. The motivation for this propaganda is clear: PVC is a critical product for the chlorine industry.

Because caustic soda and chlorine are produced in roughly equal quantities, the demand for caustic soda must always be matched by demand for chlorine. Recently, pressure from environmentalists has caused a decline in chlorine demand as uses in CFCs, pulp bleaching, solvents, and pesticides are phased out. Meanwhile caustic soda demand remains strong. Chlor-alkali companies like Solvay must look for a "sink" for chlorine, lest it become a waste. PVC—the only major use for chlorine which is not shrinking—is the answer, and it now uses about one third of worldwide chlorine production. [5]

This is the central reason behind the recent proliferation of frivolous and wasteful PVC packaging, and the burgeoning market for PVC building materials. The chlor-alkali industry has no interest in reducing PVC demand through recycling or sensible materials policies, and is in fact increasing its production for expansion into less industrialized nations. And with PVC reaching a saturation point in industrial uses, industry is working to increase PVC markets in other sectors. Projects which are promoted as important investments or as "sustainable development," may in fact be a sophisticated form of chlorine dumping.

Rhone Poulenc

GREENWASH SNAPSHOT #5: RHONE POULENC A case study in toxic pesticide exports and pollution in Brazil's "Valley of Death".

Chairman and CEO: Jean-Rene Fourtou
HQ: 25, Quai Paul Doumer, 92408 Courbevoie Cedex, France tel: 33-1-47-68-12-34 fax: 33-1-47-68-16-00
France's largest chemical company, world's 8th largest, 200 operations in over 80 coutries, controlled by the French government.
Major businesses: Agricultural industrial and specialty chemicals and intermediates, pharmaceutical, fibers.
Major subsidiaries: Rhodia (Brazil)
Signer of Responsible Care and the ICC Rotterdam Charter

Rhone Poulenc outfall at St. Aubin, France.

Exporting A Deadly Poison

In 1990, Rhone Poulenc was named "Exporter of the Year" by the French Centre for Foreign Trade. The Center did not, however, add that many of those exports are deadly chemicals. Rhone Poulenc is the world's only producer of what has been called "the most toxic pesticide now on sale"—aldicarb. [1] A drop of Aldicarb absorbed through the skin can kill an adult. Exposure to smaller amounts can cause nervous disorders, respiratory arrest, nausea, stomach cramps, diarrhea and headaches. [2] In 1986, during its first week of use in Costa Rican banana plantations, 100 workers were poisoned by aldicarb. In 1985, over 1000 people in the U.S. and Canada became ill after eating aldicarb-treated watermelons. In 1988, Costa Rica's National Institute of Insurance estimated that aldicarb was the number one cause of pesticide poisonings in Guaypil, the country's banana- growing region. And in 1989 U.S. EPA toxicologists estimated that tens of thousands of infants and children a day were exposed to enough aldicarb residues in bananas and potatoes to pose the risk of illness and recommended that the EPA forbid aldicarb's use on these crops. [3] The dangers of aldicarb have prompted at least eleven countries to ban or deregister the chemical. But Rhone Poulenc continues to sell it in more than seventy countries. [4]

Bhopal Gas in Black America

Rhone Poulenc has also "exported" the hazards of aldicarb production; not to Southern nations, but to the African-American community of Institute, West Virginia. The plant, bought from Union Carbide, is now the only place where aldicarb is made. [5] Part of the aldicarb manufacturing process includes the use of methyl isocyanate—the gas which killed thousands at Bhopal. Citizens of Institute have said that the aldicarb plant is part of a pattern of corporations locating extremely hazardous facilities in black communities which the residents call "environmental racism." [6] In February, 1990, the West Virginia plant leaked the Bhopal gas. Rhone Poulenc did not report the leak to the authorities or to the public. In fact the community did not learn of the leak until a local TV station reported the incident three days after it happened. [7]

Rhone Poulenc in the "Valley of Death"

"Borne by the Brazilian (economic) miracle, Rhodia has built an industrial base and powerful market on the American continent..."—Rhone Poulenc Magazine 'Presence' [8]

"We are paying for the country's development with our lives."—Jose de Santana, Cubatao resident [9]

Rhone Poulenc, like many TNCs, has dirty plants outside its home country. Take Cubatao, Brazil, known as the "Valley of Death" and one of the most polluted cities

on earth. It was there, from 1976-78 that Rhone Poulenc subsidiary Rhodia produced pentachlorophenol, a hazardous wood preserving chemical. The chemical, known locally as "Chinese powder", was dumped near the community and caused numerous poisonings among workers and residents. 10

With dozens of factories in the valley, it is impossible to identify Rhone-Poulenc's specific contributions to the appalling, inhuman conditions in Cubatao (SEE BOX). But even the company has admitted their contribution to the disaster, saying that "With respect to environment...Cubatao is the Achilles Heel of Rhodia". 11

The catastrophe in Cubatao however, appears to have been good for Rhone-Poulenc's business. Rhodia was the company's most prosperous subsidiary throughout the 1980's, with 11% of worldwide sales. The company now boasts that it has invested 21 million dollars to build an incinerator for wastes at Cubatao. 12

"We are considered good citizens. That which is good for us also has to be good for the country." —Rhodia President Edson Vaz Musa 13

"I saw the trucks from Rhodia when we came out of school around eleven at night. They dump all that filthy waste in the forest.. We get a northwesterly wind here. It blows very strongly. The wind carries the chemical dust to the village, and we all get itchy.. The authorities have just put up a sign: 'Swimming prohibited.' The soil is contaminated. Our trees don't bear fruit anymore." —Adauto Alves de Nobrega 14

Rhone Poulenc's Greenwash Fable

Phosphate pollution, mostly stemming from detergent use, is a major cause of environmental degradation of lakes, rivers, and seas. When phosphate use restrictions in Germany, Switzerland and Italy directly threatened Rhone Poulenc's sales, the company hired the public relations firm Hill and Knowlton to mount a campaign to thwart regulations on phosphates in France. The ad campaign, featuring a wolf in sheep's clothing peddling phosphate-free detergent, tells you that "phosphates, from the point of view of ... environmental impact, give the best results."

The campaign worked. In 1991, the French government suspended legislation against phosphate use. Who is the real wolf in sheep's clothing?

THE CATASTROPHE IN CUBATAO

It is almost impossible to describe the magnitude of the environmental crisis in Cubatao and its impact on residents.

A monitoring device in the Cubatao slum of Vila Parisi has recorded daily doses of 473 tons of carbon dioxide, 182 tons of sulfur, 148 tons of particulate matter, 41 tons of nitrogen oxide, and 31 tons of hydrocarbons. 1 The city has the highest level of acid rain ever recorded. 2

Emergency air quality alerts are declared in Cubatao dozens of times each year. In July of 1991 the governor of Sao Paolo state suspended industrial activity in Cubatao during a thermal inversion which elevated the particulate content of the air to 2000 parts per cubic meter (66 parts per cubic foot). The international standard for "good quality" air is 50 ppcm, and the norm for a chronically polluted city like Sao Paulo is 70 ppcm. 3 Some residents are exposed each day to around 1200 particulates per cubic meter, more than twice levels that the World Health Organization says provoke "excess mortality." 4

The city suffers the highest infant death rate in Brazil with one third of children not surviving their first year. A study released in the 1980s showed that 8% of live birth babies suffered from such abnormalities as spinal problems, missing bones, and brain deficiencies. 5 Over one-third of Cubatao's residents suffer from pneumonia, tuberculosis, emphysema, and other respiratory sicknesses. 6

"On my knees I address the world. For God's sake, help us! I ask all the presidents of the world: Help us solve our problem. Tell our President and our public health service. We're slowly dying. We don't see our children grow up... The whole village has been poisoned. But the company knows how to buy silence.. .I hope everyone will see this. They'll understand why we fight so hard for our families. —Francisco Alves de Moura 7

Sandoz Limited

GREENWASH SNAPSHOT #6: SANDOZ A case study in dirty industry transfer and biotecnology experimentation.

Headquarters: CH-4002, Lichstrasse 35, Basel, Switzerland tel.: 011-41-61-324-11-11
fax: 011-41-61-324-80-01
Chairman & CEO: Marc Moret
Major businesses: pharmaceutical; chemicals; agrochemicals; seeds; nutrition. Sandoz has operations in 54 countries.
Signer of Responsible Care and the ICC Rotterdam Charter

"...The Rhine is now dead. The whole ecosystem is destroyed due to this accident."
—Walter Herrmann, Chief Inspector, Rhine River Police November 1986 1

"We didn't think about the Rhine."
—Ernst Wessendorf, information officer, Sandoz November 1986 2

A recent Sandoz advertisement depicts a forest and tranquil pond, with a clean river dominating the scene. 3 The choice of a river for Sandoz's image is conspicuous; Sandoz is best known as the company responsible for the worst river spill in history. In the 1986 catastrophe, a chemical spill near Basel, Switzerland contaminated the Rhine River—killing fish, wildlife and plants for hundreds of miles.

After the Rhine spill, in which thirty tons of extremely hazardous organophosphates named disulfoton and parathion were washed into the river, Sandoz "cleaned up," its operations by moving 60% of its organophosphate production to Resende, Brazil. In 1989, another ton of Sandoz disulfoton nearly spilled into the Rhine. Shortly thereafter, Sandoz moved the rest of their organophosphate production to Brazil and to India. 4 Apparently, the company believes that it is legitimate to move a production process which destroyed a river ecosystem in Europe to Latin America and Asia.

Sandoz "Tests" Biotechnology Abroad

Sandoz is one of many TNCs involved in biotechnology. It's Austrian subsidiary Biochemie GmbH is now engaged in selling bovine growth hormone (BGH) under a license from Monsanto in central and eastern Europe. BGH is the first genetically engineered agricultural product to reach the market. It is not licensed in Switzerland or Austria and the European Community has recently extended a moratorium on the product by two years. 5 The reason is simple: BGH, designed to increase milk production in cows, has not been approved for use in many countries because its risks have not been fully investigated.

High-producing milk cows have shown elevated susceptibility to infectious diseases. If BGH use increases health problems in cattle, antibiotic use will also rise. Cows can accumulate anti-biotic resistant organisms which, when transferred to humans through milk, cause serious infections which are difficult to treat precisely because of antibiotic resistance. BGH's effects on infants are of particularly great concern.

Biotechnology companies like Sandoz are using Eastern Europe and the Third World as testing grounds for genetic products whose safety is not proven. In the case of BGH, the profits will belong to Sandoz, and the risks to the farmers, consumers and children of other nations.

"Appropriate" Genetic Technology?

BGH, like many TNC technologies, may be incompatible with the needs of those it is supposed to help. Because of its high cost, BGH will be impossible to use for many small-scale farmers who are most in need of the income and nutrition that milk production

provides. Only wealthy cattle owners will be able to afford BGH, and as larger, more modern farms increase production small and medium farmers will be forced out of business. Further, because of its cost, BGH will probably reach developing countries through development-aid packages which are tied to buying goods and services from companies in the donor country.

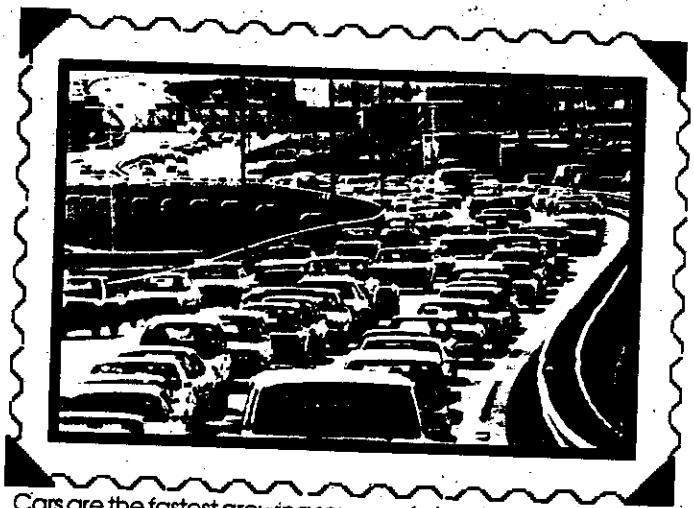
In many countries, concentration of cattle can and does lead to the conversion of agricultural land to pasture and the feeding of grain to cattle rather than to hungry people. The urine and manure generated on large cattle feedlots also pollutes surface and ground water as well as soil which could be used for agriculture. In addition, concentrated milk production can displace cheaper, more traditional protein sources, while not benefiting the majority of the rural poor. [6]

Monsanto, Sandoz and other biotech companies promote ventures in genetic engineering as solutions to malnutrition. [7] However the case of BGH is typical—genetically engineered products will be patented and sold at high prices, often back to the same countries where genetic stock originated. Just as corporations promised in the 1960's that a new generation of pesticides and other agricultural inputs would help the poor, now these TNCs are promising new biotechnologies will feed the hungry. The first time, the "green revolution" failed to eradicate hunger (although it did succeed in making profits for agrochemical companies). The "gene revolution" may be more of the same.

General Motors

GREENWASH SNAPSHOT #7: GENERAL MOTORS A case study in auto-dependency, lost jobs, and pollution.

CEO: Robert Stempel salary: $869,000
Headquarters: 3044 W. Grand Blvd., Detroit. MI 48202
tel.: 313-556-5000 fax: 313-556-5108
Products: motor vehicles
Signer of the ICC Rotterdam Charter



Cars are the fastest growing source of air pollution and energy use worldwide. General Motors has repeatedly fought against new fuel efficiency and air emissions standards in the United States.

GM, Cars and the Environment

"At General Motors, we recognize the effects that cars and their manufacture have on the environment. We understand the relationship better than any other carmaker in the world."
—GM Earth Day 1990 advertisement

General Motors ought to understand—they are the world's number one manufacturer of motor vehicles, and motor vehicles are in turn the world's number one source of air pollution. The world's 550 million cars, trucks, and commercial vehicles consume one-third of the world's oil. [1] General Motors vehicles release an estimated 2% of the carbon dioxide emitted into the air each year. In the Organization for Economic Cooperation and Development (OECD) countries, GM accounts for an estimated 11% of the carbon monoxide, 8% of the nitrogen oxides, and 6% of the hydrocarbons emitted by vehicles annually. [2] The American Lung Association calculates that the health costs attributable to vehicle emissions in the US alone is $25 billion per year. [3]

If GM really understood the effects of their products on the environment, we might logically expect to see more emphasis on fuel efficiency, renewable fuels, and even public transportation and bicycles. However, GM is a staunch opponent of raising fuel economy standards—they and other automakers have consistently, and successfully, pressured the US government to roll back fuel economy standards and reaped huge profits as a result. In 1986, the National Highway Traffic Safety Administration (NHTSA) would have fined GM $385 million for failing to meet the 1985 corporate average fuel economy (CAFE) standard of 27.5 mpg but for the rollbacks given that year. [4]

While GM busily lobbies against fuel efficiency and pours money into front groups to

of private automobiles and a potentially huge market for GM. But the company will not commit themselves to putting the prototype into production.

Spreading Car Dependency

During the first half of this century, GM and other large corporations bought up rail companies and dismantled public rail transport in forty-five US cities in order to increase the demand for private vehicles. The environmental and social effects of American car dependence are well known—the US and Canada are the largest per capita users of gasoline in the world, and cars continue to be both the fastest-growing energy demand and the fastest growing air pollution source in North America.

In the second half of this century, GM and other automakers have steadily expanded into Latin America, where GM is the largest US vehicle manufacturer. Road and highway construction in the region has diverted funds from public transportation in cities where the majority of the population cannot afford a car. In Brazil, it is estimated that in order for the car market to expand the income of the top 10% of the population would have to increase, worsening the gap between rich and poor. [5] The effect that the lack of access to transit has on the majority of the urban poor is profound—controlling their access to jobs, health care, and basic services. Commutes of two hours or more in each direction are routine for people who come from the shantytowns on the outskirts of Sao Paolo and other booming Latin American cities into the center to work. [6]

Unsustainable Jobs, Lasting Pollution

GM has pledged to "knock the hell out of the competition" in its effort to become the largest US vehicle manufacturer outside the United States. [7] To cut costs, the company is laying off workers in the US—30,000 in the late 1980s and a planned 75,000, or 18% of its workforce by the mid-1990s. Facilities are being moved to Mexico and other countries where wages are a fraction of those in the U.S. [8] GM's movement has come in spite of economic incentives offered by communities and wage and benefit concessions which have been given by autoworkers in the U.S. throughout the late 1980s and 1990s. In North Tarrytown, New York, where years of concessions given by the town and union failed to prevent closure of the local GM plant, one official said "We're left holding the bag, and the bag is empty." [9]

Communities which do become the sight of a GM plant can expect to be left with a contaminated environment. Wastewater discharges from a GM plant in Matamoros, Mexico were found to have extremely high levels—6600 times US standards—of the toxic solvent xylene, which can cause respiratory irritation, amnesia, brain hemorrhages, internal bleeding, and damage to the lung, liver, and kidneys. The discharges went into an agricultural drainage canal that leads to the Rio Grande, a source of drinking water. [10]

In 1990, the EPA issued a $78 million cleanup order to GM to for a foundry in Massena, New York. The facility and surrounding areas had been contaminated with the equivalent of 55,000 truckloads of PCBs and other toxic chemicals. In 1991, the US EPA fined GM and two New York state companies $35.4 million for improperly disposing of PCB-contaminated sludge there. This was one of the largest penalties ever levied by the EPA. In 1990, GM paid the Occupational Health and Safety Administration $360,000 for alleged violations of health and safety rules at US plants. In 1987, GM paid $500,000 for similar violations. [11]

In Lordstown, Ohio, a branch of the United Auto Workers organized Workers Against Toxic Chemical Hazards (WATCH) in response to lack of action on chemical safety issues in the workplace at a General Motors plant.

"I work at Rimir, a General Motors plant....I am very concerned about the contamination caused by toxic chemicals that come out of the Rimir plant. At the Rimir plant we paint automobile bumpers. To clean paint guns and paint lines we use chemical solvents....We run the solvent through the guns and lines to purge the paint....All of the liquid solvents go down into the floor drain and into a pipe that leads to a canal on the side of the Rimir plant."
—anonymous GM worker [12]

"For more than three decades, GM has seen a clean and healthy environment as a top priority."
—Robert Stempel, GM Chairman & CEO [13]

Millions of GM products have violated US vehicle emissions standards. From 1982 to 1990 GM recalled or was ordered to recall 7.5 million cars. Over two-thirds were for excessively high emissions of nitrogen oxides, carbon monoxide, and hydrocarbons; the rest were for faulty emission control systems. US EPA Recall Orders or GM Voluntary Recalls 1982-1990:

2,902,000 vehicles for excessive emissions of nitrogen oxides.
1,178,000 vehicles for defective catalytic converters.
1,171,843 vehicles for excessive hydrocarbon emissions.
1,160,000 vehicles for defective emission control systems.
500,000 vehicles for excessive carbon monoxide and evaporative emissions.
598,588 vehicles for excessive evaporative emissions.

Record of GM recalls and recall orders in Environment Reporter on relevant dates or in United Press International.

Motor Vehicle Air Pollution

Vehicle Exhaust Pollutant	Environmental Effects	Health Effects
Carbon Monoxide	Helps increase the buildup of methane, an important greenhouse gas.	Lethal in large doses; affects central nervous system; aggravates heart disorders; impairs oxygen carrying capacity of blood.
Nitrogen Oxides	Acid rain, contributes to buildup of ground-level ozone, a greenhouse gas 2000 times as effective as carbon dioxide in retaining earth's heat.	Irritate or impair respiration; lessen resistance to infection. (Ozone causes eye, nose and throat irritation and can damage vegetation.
Hydrocarbons	Contributes to build-up of ground-level ozone.	Drowsiness; coughing; eye irritation.

Other toxic vehicle emissions include benzene, aldehydes, and lead.

Adapted from Greenpeace International report "The Environmental Impact of the Car." p. 32

Westinghouse Electric Corporation

GREENWASH SNAPSHOT #8: WESTINGHOUSE A case study in weapons and nuclear construction.

Westinghouse Electric Corporation
Headquarters: Westinghouse Bldg., Gateway Center, Pittsburgh, PA 15222
tel.: 412-244-2000 fax: 412-642-3404
CEO: Paul Lego salary: $1,681,252
Major businesses: nuclear weapons, electronics; electrical supplies; nuclear power; waste disposal.

In the U.S., when people hear the name "Westinghouse" they think of household appliances. Only rarely does the company publicize another side of its business: nuclear weapons and reactors. Westinghouse produces nuclear propulsion systems for military submarines and nuclear-armed surface ships as well as launching systems for intercontinental ballistic missiles and cruise missiles such as the MX and Trident.[1] The company has operated nuclear weapons facilities for the U.S. government at Hanford, Washington; Fernald, Ohio; Idaho Falls, Idaho and Savannah River, South Carolina. The most optimistic estimate for cleanup costs for contamination at Hanford alone is $30 billion over 30 years, if indeed cleanup can be done at all.[2] The environmental damage at U.S. nuclear weapons production facilities is so monumental that it cannot be greenwashed away. But in its civilian businesses, Westinghouse has joined the corporate greenwash brigade.

Nuclear Greenwash

"Our industry (nuclear power) will become one of the principal symbols of the entire environmental decade. We can be cast as its hero."

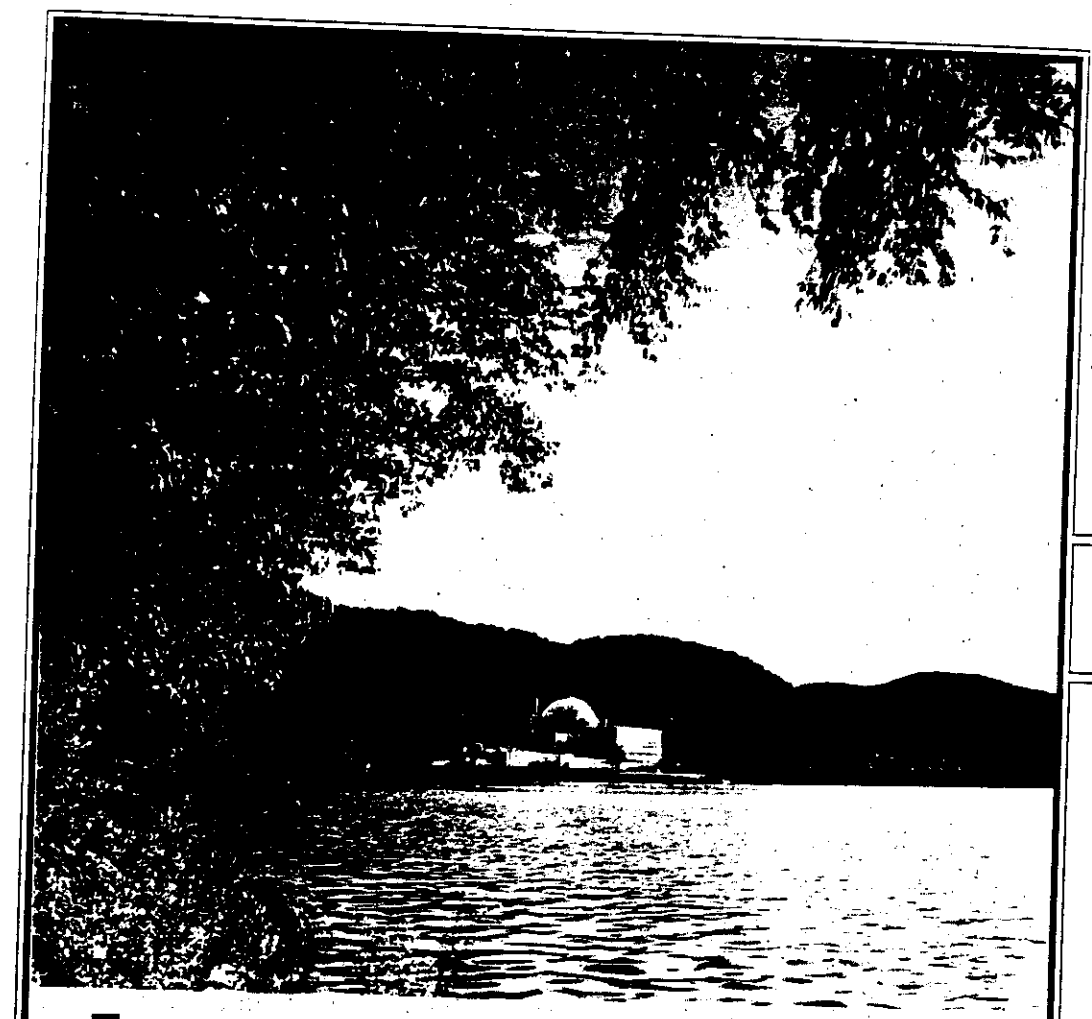
—Richard Slember, Vice President & General Manager
Westinghouse's Energy Systems Business Unit[3]

A pioneer in the development of nuclear reactors throughout the world, Westinghouse now touts nuclear power not only as the answer to global energy needs but also as a savior of the environment. Because they burn no fossil fuels, Westinghouse suggests, nuclear plants are an answer to the greenhouse effect.[4] The U.S. nuclear lobby which Westinghouse helps fund says that nuclear power can help stop global warming while it satisfies the demandfor electricity. A recent advertisement by the nuclear lobby group US Council for Energy Awareness showed a bucolic country scene with a nuclear plant in the background and the caption: "Trees aren't the only plants that are good for the atmosphere."[5] This is greenwash at its most absurd.

In simple terms, nuclear power cannot stop global warming. Nuclear reactors generate electricity—only about one-sixth of greenhouse gases come from burning fossil fuels for electricity. Research has shown that a crash program to offset carbon emissions from coal-fired electricity generators alone would require the construction of 5000 nuclear reactors over the next three decades, most of them in the South at a cost of $144 billion in capital expenses annually and electricity generation costs of $525 billion per year.[6] Even with such a construction program, carbon dioxide emissions globally would still rise. In fact analysts have theorized that spending on nuclear power can worsen global warming by draining energy investment away from energy efficiency and renewable energy. For each $100 spent on nuclear power, one metric ton of carbon is effectively released in to the atmosphere that could have been avoided had the money been spent on energy efficiency. Finally, such a nuclear construction program would generate 100,000 tons of high-level radioactive waste per year, with no resolution to the nuclear waste crisis in sight.[7]

"If we can't resolve what we're going to do with the waste, then we have no business generating it.

—Cecil Andrus, former US Secretary of the Interior[8]



Trees aren't the only plants that are good for the atmosphere.

Nuclear energy means cleaner air.

Westinghouse is a major contributor to the lobby group US Council for Energy Awareness, whose ad campaigns promote nuclear power as an environmentally friendly answer to global warming.

Westinghouse in the Philippines

Westinghouse and other companies have promoted and exported nuclear power to countries in Asia and Latin America and Westinghouse is currently pushing to build reactors in Central and Eastern Europe.

The Philippines experience with Westinghouse is illustrative. In 1976, Westinghouse signed a $1.1 billion contract with President Ferdinand Marcos to build a nuclear reactor in the Bataan peninsula. By 1985, when Westinghouse completed construction, the Bataan plant's price had risen to $2.2 billion, or over 8% of the Philippines's foreign debt. Interest payments alone on loans for the plant are about $350,000 a day. The plant is the largest single capital investment in Philippine history—in a country where poverty, unemployment, and malnutrition are pervasive.

Seventy percent of the Philippine population, primarily landless tenants and

subsistence farmers, consume a tiny fraction of the country's electricity. In fact, outside business and military interests situated near the plant were to be the real beneficiaries.

"The reactor is not designed to supply electricity to our people. It's for Clark Air Force Base and the Subic Naval Base and the Bataan free trade zone, where foreign companies make textiles for foreign markets—most of them American."

—Nicky Perlas, Philippine Movement for Environmental Protection, 1979 [10]

Hardest hit by the Bataan reactor were the 13,000 poor villagers displaced by the plant's construction.

"Many of us have no more land to till. The lands where we used to get our food and livelihood from are either bought at low price or confiscated because they were needed by the plant. Before, the fishermen used to fish near the shore. ...(The government) has driven the fish away because earth fillings are washed directly into the sea. Parts of mountains abundant in fruit trees and other crops are already leveled off."

—Bataan resident, 1979 [11]

Westinghouse's poor on-site construction and oversight left the Bataan facility with so many potentially catastrophic flaws that a Marcos-appointed commission concluded that Westinghouse had shown a "lack of immediate concern over the safety of the plant." [12] Marcos's successor, President Corazon Aquino, refused to operate the reactor and in 1988 the Philippine government initiated a law suit against Westinghouse alleging that the company paid bribes to an associate of Marcos's in order to win the plant construction contract. That case was recently suspended when Westinghouse agreed to pay $100 million in cash and services to the government. Even with new investment of $400 million in repairs now propose by the Aquino government, the plant will not be operable for at least three years. [13]

The Philippines plant is not an isolated case. Brazil's Furnas Centrais Electricas has been engaged in a dispute with Westinghouse over issues of negligence and construction problems in connection with the company's steam generators at the nuclear reactor Angra-1. [14]

"We're proud of the plant we built."

—Nathaniel Woodson, General Manager
Westinghouse's Nuclear Fuel Business,
speaking about the Bataan reactor 1988 [15]

Aracruz Celulose S.A.

GREENWASH SNAPSHOT #9: ARACRUZ A case study in deforestation, chlorinated emissions, and paper over-consumption.

Chairman: Erling Lorentzen
Headquarters: Rua Lauro Muller, 116 Floors 21, 22, 40 22290 Rio de Janeiro, Brazil
tel.: 21 541 6637 fax: 21 295 7943
Main business: bleached eucalyptus pulp.
Member of the BCSD
Signer of the ICC Rotterdam Charter

Brazil-based Aracruz, the world's largest exporter of bleached eucalyptus pulp, has been singled out by several sources to represent business's potential for sustainable development. The Business Council for Sustainable Development (BCSD) has written of Aracruz's activities as a case study in sustainable development. The Financial Times of London has called it a "showcase for how a thorny environmental area can be turned into an economically feasible and environmentally sustainable development project." [1] The article reports that the Norwegian chairman of Aracruz has lobbied for UNCED to use Aracruz pulp for the mountains of paper to be distributed in Rio.

Since the BCSD has declared that Aracruz represents their approach to sustainable development, it deserves scrutiny, even though it is much newer and smaller than the other corporations profiled in this booklet. One cannot compare Aracruz's operations with the destruction wrought by the chemical giants. But there is more than one side to the Aracruz operation, and a close look shows much of the positive rhetoric about the company to be greenwash.

Promoting the idea that land MUST be used for "economic function," will in fact hasten the destruction of rainforests.

As presented by Pulp and Paper Institute, the Financial Times, and in BCSD materials, the claims to environment and development sainthood for Aracruz can be summarized as follows:

Claim 1. Aracruz is preventing deforestation. The Aracruz complex is in the coastal state of Espirito Santo, which was once almost entirely covered with Atlantic rainforest. The main causes of the 90 per cent deforestation of the area were logging, coffee plantations, and cattle ranching. But Aracruz's record on forests is far from perfect. Analysis of an environmental impact report presented by Aracruz to expand its pulp production shows that at least 30% of the municipality of Aracruz (around 20,000 hectares) had naturally generated secondary forest which was replaced by eucalyptus plantations. The plantations have halted regeneration of a multispecies ecosystem in degraded areas. [2]

Aracruz is not directly involved in cutting primary forests, and argues that by "giving this land (in Espirito Santo) economic function we are preventing further incursion into the Amazon." [3] The company does not currently operate in the Amazon, but it has considered expanding its activities to the Amazon area, with a large pulp mill in Maranhao and involvement in the Vale do Rio Doce Forest Centers project in Carajas, which intends to establish 1 million hectares of planted forests in the eastern Amazon.[4] In the end, promoting the idea that land must be used for "economic function," forcing subsistence and local economies into marginal areas, will in fact hasten the destruction of rainforests.

Claim 2. Aracruz does not harm the environment. Aracruz uses a 5-stage bleaching process which uses both elemental chlorine and chlorine dioxide. The use of chlorine chemicals for bleaching in the pulp and paper industry is a major cause of organochlorine contamination. Aracruz plans to switch to the use of chlorine dioxide only, aided by a new oxygen bleaching system. [5] Complete substitution of elemental chlorine by chlorine dioxide will reduce but not eliminate organochlorine discharge.

The company was fined in March 1991 by the state environmental agency for toxic gas emissions. In September 1991 it was fined again for dumping untreated effluent into a stream through a discharge pipe which was not listed on the company's license application to the environmental agency.[6] Aracruz has admitted the existence of the discharge but denies that it is dangerous.

Claim 3. Eucalyptus plantations are part of sustainable forest management. Tree plantations are not forests; they are timber farms designed to produce a wood crop in

Tree plantations are not forests; they are timber farms.

the shortest possible time, regardless of social or ecological cost. The average age of trees harvested by Aracruz is seven years. The destructive impact of eucalyptus plantations on tropical soils, water tables, biodiversity, and thus local livelihoods and communities is well documented. In the case of the Aracruz plantations, local communities are still struggling to have the social and economic costs of the scheme recognized and compensated.

Claim 4. "Sustainably produced" paper is better than recycled paper. The Financial Times quotes an Aracruz executive as saying that paper produced from "sustainable" forestry is better than recycled paper because "with recycled paper one does not know where the original came from. We need to break this myth that saving paper saves rainforests."[7]

It is true that recycled fibers have many sources, but saving paper in the North—both by recycling and using less, will save tropical and temperate rainforests. Annual paper consumption per person in the United States is more than ten times that in Brazil.

Aracruz exports 80 percent of its product to the North, where huge over consumption of paper products is the driving force behind massive plantation and pulp-producing operations like that in Espirito Santo, and is also a cause of rainforest cutting.

Claim 5. Aracruz is helping a region with economic stagnation and is contributing to social progress. Aracruz has been the beneficiary of some dubious social and economic conditions. It started the Espirito Santo eucalyptus plantation in 1967 under a military dictatorship from which it received incentives for the establishment of tree farms, a pulp plant, and other infrastructure. The company plantations include around 15,000 hectares of Tupiniquim Indian lands to which the company gained the rights simply by claiming that the people living in the area were not Indians anymore.[8]

When an agreement between Aracruz and the state prohibited the company from buying more land to expand its plantations, Aracruz turned to promoting the establishment of eucalyptus plantations on land that was used for food production by participating in an extension program that was intended to support farmers, using the justification that they were giving an alternative to peasants.[9]

Aracruz's huge plantations exist to supply northern markets.

Expansion of Aracruz's pulp mill to 1 million tons a year has been made possible largely through funding from development banks Thus the construction of a "big, simple and efficient" mill comes at the expense of other development needs. *10* In the end, local people cannot eat pulp—Aracruz's huge monoculture plantations exist to supply northern markets.

"Enlightened environmental stewardship with corporate profitability."
Pulp and Paper International attributes this praise of Aracruz to the UNCED Secretariat[11]

Responding to Greenwash

Beneath the glossy public relations campaigns and the superficial environmental initiatives of the TNCs lie destructive production processes and products that are at the heart of the global environment and development crises. Ozone-destroying chemicals, extremely toxic pesticides, and nuclear reactors are a few of these. No corporate environmental department or green advertising can make a TNC whose lifeblood depends on such products and processes a friend of the environment.

Despite the urgent need for binding agreements controlling the impact of TNCs on the environment and their role in development, the formal UNCED process has all but ignored the issue. Instead, the corporations themselves and their political organizations such as the BCSD and ICC have set the terms of the debate. As a result UNCED itself now risks becoming greenwash on a grand scale by giving the false impression that important, positive change has occurred and failing to alert the world to the root causes of environment and development problems. In the end, the TNCs, in

collaboration with some governments, could hijack the Earth Summit and destroy an historic opportunity to make progress toward ecologically sound, socially equitable development.

Clearly, the TNCs agenda at UNCED is more greenwash than green. Unregulated free trade and a lack of international controls on corporations may boost profits. It will assuredly result in the building of more nuclear power plants, increasing oil exploration and extraction, accelerating deforestation, continuing exports of leaded gasoline, banned pesticides and hazardous industries, and expanding production of cars and toxic waste. It won't save the earth.

Millions of people around the world, having borne the brunt of and organized against TNC depredations like those described in this booklet realize that corporate claims on environmental issues often have no basis. Their experience demonstrates what common sense tells us: TNCs are not primarily interested in environmentally sound, socially equitable development and cannot be relied upon to police themselves in environment and development issues.

Control of TNC behavior must come from participatory governmental processes, the force of local and national laws, and the power of international commitments. In the context of such a structure, the TNCs' use of market mechanisms and sincere voluntary initiatives can be important; such activities however, cannot serve as replacements for regulatory control.

Some citizen's groups and environmental organizations have begun to respond to corporate power with guiding principles of their own. Principles like these alone will not guarantee a future of environmentally sound, socially equitable development. They too will be adopted, and sometimes co-opted and corrupted by industry in another round of greenwash. However, implemented in a dynamic, inclusive process, they CAN help people win control of their environment and their lives.

A few of these principles are set forth below, in the belief that they can contribute to improving society's ability to ensure that corporate behavior becomes truly green.

Precautionary Principle

Any new project must be based on the precautionary approach, that is, the company must be able to prove that their products and activities will not cause harm. The burden of proof is not on the community, general public or government. In cases of scientific uncertainty, precaution should be the guiding principle.

Clean Production

New TNC projects should use Clean Production methodologies. For existing operations, a schedule for conversion to Clean Production should be implemented.*

Public Accountability and Public Participation

The people most affected by TNC activities should have a strong voice in decisions about those activities. The principles of precautionary action and clean production will only be achieved by an active public with access to information and decision-making power.

Environmental Assessments

Environmental assessments can identify potential impacts and lead to improvements or abandonment of harmful projects. They should be conducted, by an independent body, for all planning decisions.

Bans

No TNC should be allowed to trade or invest in wastes, banned or severely restricted products, obsolete technology, or practices which represent a double standard in health, safety and environmental practices.

Liability and Contractual Clauses

If TNCs are truly committed to environmental protection and to the communities which host their activities, they will be willing to enshrine that commitment in legally-binding contractual clauses, enforceable in any country of operation.

*For discussions of Clean Production, please see Greenpeace reports including: "Avoiding Western Mistakes; A Guide to Clean Investment in Eastern and Central Europe," by Iza Kruszewska for Greenpeace International, and "The Product is the Poison; The Case for A Chlorine Phase-out," by Joe Thornton for Greenpeace USA.

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