

THE POCANTICO CONFERENCE CENTER  
OF THE ROCKEFELLER BROTHERS FUND

# ACCOUNTABILITY IN THE PESTICIDE INDUSTRY

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A REPORT BASED ON A FORUM AT  
THE POCANTICO CONFERENCE CENTER  
OF THE ROCKEFELLER BROTHERS FUND  
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# FOREWORD

This paper takes a sector-specific view of a widespread problem currently dominating the news headlines. The problem is corporate accountability. The lens used for analysis is the agrochemical sector.

Investor concerns about the inadequacy of corporate disclosure rules in the United States have fueled across-the-board declines in stock prices. At the time of this writing, President Bush's moves to tighten reporting requirements and punish corporate wrongdoers haven't calmed the markets. On the contrary, in recent weeks we have seen one of the sharpest falloffs in major stock indices in more than 15 years. Whether this dangerous downward spiral will end soon is anyone's guess; but even were it to end tomorrow, it is clear that this year's massive loss of confidence in the financial markets will permanently alter our perceptions of what constitutes adequate corporate responsibility.

When staff at the Rockefeller Brothers Fund (RBF) began late last year planning a meeting on accountability in the pesticide industry, we had no idea that accounting procedures and financial risk disclosure requirements would become such prominent issues. The RBF has been involved in agriculture issues for many years. And while we felt our work had contributed to a positive agenda for tropical agriculture, particularly in Asia, we were often left with the nagging feeling that we were having little impact on a major obstacle to the development of sustainable alternatives—that is, the power of agrochemical interests. Everywhere we worked, we heard similar stories. Pesticide use was expanding despite awareness of the dangers; the influence of agrochemical companies on national development plans continued unabated; pesticides banned in industrial countries were being aggressively marketed in the Global South; and that the whole industry-promoted notion of “safe use” of pesticides in the tropics was a cruel joke perpetrated on farmers and agricultural laborers who lack the power to

bargain for improved occupational health and safety standards. The prevailing attitude we heard from government officials, public health workers, and NGOs can be summed up as follows: “Despite the existence of viable agricultural alternatives, and despite a broad understanding of the problems and risks associated with these products, deceptive marketing and outright dumping of these chemicals in the farm sector continues. There seems to be no way to hold these companies accountable for their actions.”

At the RBF, we watched a great deal of donor and activist attention migrate to the related issue of biotechnology, and we became concerned that the negative effects of pesticide use was considered “yesterday's news”: the general perception apparently being that the “the pesticide problem” had already been solved. In fact many corporations with agrochemical interests are now getting involved with the manufacture and marketing of transgenic crops; and indeed some transgenics are designed to promote expanded herbicide use, so issues of agrochemical use and the deployment of new transgenic crops are in fact inextricably linked. But in stark contrast to pesticide use, a great deal of basic work remains to be done regarding actual and potential health and environmental impacts of transgenic crops—and, as usual, regulatory controls are lagging far behind the science.

At this point in history, the science regarding the ecological and public health consequences of pesticide misuse is unequivocal. We know these products cause serious and lasting harm. While additional controls are needed, a number of important regulatory and judicial handles already exist that should enable us to curb the worst pesticide abuses, at least in theory. However, the full range of what those handles are, and how they might be used to accomplish this, have not yet been fully described or attempted to date. Similarly, although many of the problems associated with pesti-

cides are generally understood by the public, we believe that specific information about the long-term downside risks of investments in pesticides are not being adequately communicated to market analysts. We further believe that efforts to help to provide this information in ways useful to financial service professionals represent a profoundly constructive contribution both to ensuring greater corporate accountability, as well as safeguarding public and environmental health.

It was with these tasks in mind that in June of 2002 the RBF brought a small group of concerned scientists, lawyers, socially responsible investment professionals, and sustainable agriculture advocates to our Pocantico Conference Center. It turned out that we were convening the meeting at a time when corporate accountability was front-page news.

The report that follows distills the brainstorming and suggestions of those who participated in the Pocantico meeting on “Accountability in the Pesticide Industry.” On behalf of the Rockefeller Brothers Fund, we would like to sincerely thank the participants, as well as several outside reviewers whose schedules prevented them from attending in person. To an unusual degree, this Pocantico paper should be seen as a collective effort. Because of the range of expertise arrayed around the Pocantico table, everyone’s contribution was vital—and all of us faced very steep learning curves. We came away with a much better appreciation of the range of strategies, and of the expertise needed to make our arguments in a compelling way. As such, the paper lays out the risks of investments in pesticides; mentions those parties

whom we might wish to reach regarding this information on financial risk; and suggests strategies and opportunities for engaging those parties. Reflecting the varied expertise of participants, and their different institutional affiliations, the paper tries to address rather different audiences: financial service professionals, “corporate campaigners,” and those who work in agriculture and public health on pesticide impacts. We hope that the creative deployment of the strategies discussed here will be useful in several ways: by creating an impact on corporate responsibility and financial market perceptions of investment risks in the pesticide industry; and as a general blueprint for using financial disclosure and improved transparency to increase corporate accountability in any economic sector.

With this breadth of intended audience in mind, we hope that the paper provokes comment and debate and perhaps a modicum of well-informed outrage. We hope it is spread around and that its ideas are applied to other sectors. Responsibility for any mistakes found in the text rest with the primary authors. A full listing of citations and endnotes for this paper can be found on the Rockefeller Brothers Fund website ([www.rbf.org](http://www.rbf.org)). Since we are all learning how to do this sort of interdisciplinary work better, we would greatly appreciate your candid feedback.

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# INTRODUCTION

This paper assumes basic familiarity on the reader's part with the debate on the ecological and public health impacts of pesticide use. It asserts that the current volume of pesticides used globally is unnecessary to maintain global food production—that, in fact, our current over-reliance on chemical shortcuts is degrading the productive agricultural resource base, making future increases in yields much more difficult. Substituting less toxic chemicals, accelerating production and deployment of safer botanical pesticides, and most importantly, vigorously promoting farmer-centered, ecologically-based approaches to pest management, are considered here as primary goals for the future of agriculture.

These are hardly radical assertions. Over the past several decades, research in the fields of ecology and public health has shown the problems associated with pesticide use, and regulatory systems designed to control their use at both national and international levels have evolved in response to this body of research. In addition, research and activism at the local level has convincingly demonstrated that viable alternatives to chemical-dependent agriculture are both possible and profitable. The dramatic success of farmer-led integrated pest management (IPM) programs in curbing excessive pesticide use shows that ample scope for reductions exist even within the commodity-focused, “industrial agriculture” paradigm. For all intents and purposes, there is a broad professional consensus on the importance of reducing chemical reliance in agriculture.

The group that convened at Pocantico considered the interplay of research, advocacy, and market change factors that influence the rate of change in agricultural practices worldwide. Implementing the changes necessary for reducing pesticide reliance will inevitably challenge the vested interests of the existing industrial sector, including pesticide production, formulation, and marketing. The rational behavior of firms in this industry inevitably includes attempts to

expand their markets, prolong the patent-protected life and overall use of their products, and shape IPM programs to ensure a future role for their chemicals. In addition, there is legitimate disagreement over the speed at which major changes to our food production systems can be made, and the degree of economic disruption that will occur as a result. An accelerated move away from pesticide dependency is likely to dramatically decrease the attractiveness of the agrochemical sector for investors.

Another widely-held view that informs this paper is the likelihood that corporations will face larger liabilities than they do now as a result of harms imposed on people and nature around the world. This has already occurred with tobacco and with asbestos claims, and, in the latter case, liabilities have exceeded profitability for many companies, resulting in a slew of bankruptcies. Increasing disclosure and quantifying potential liabilities can help to discourage excessive investment in risky practices.

The point of departure for the meeting was thus the perceived disconnect between:

- The broad consensus on the need for a move away from pesticide reliance;
- The increasing possibility that pesticide companies will incur major financial liabilities; and
- The continued unquestioning support of the agrochemical industry by financial markets.

We believe this disconnect is due to a misunderstanding and underestimation of the risks, liabilities, and long-term viability of this industry. Our task, therefore, is to better document and communicate these risks and liabilities to investors, analysts, and consumers so that they will be able to better assess the market value of agrochemical firms.

## LEGAL LIABILITIES

Agrochemical companies have generally been able to avoid liability for certain types of health and environmental damage caused by pesticides. Three legal strategies have been particularly important to corporations in defending against liability: *forum non conveniens*, FIFRA preemption, and defenses to products liability law. Recent developments point toward a weakening or even dismantling of these defenses, which would remove major procedural obstacles to personal injury tort claims.

### *Forum Non Conveniens*

The legal doctrine of *forum non conveniens* (FNC) has been used to bar the suits brought by injured foreign citizens from being heard in the pesticide company's home country (U.S. and U.K.). The doctrine allows the court, in its discretion, to declare that the U.S. court, for example, is an "inconvenient" forum for the defendant, because the injury was caused in another country and the bulk of the evidence and plaintiffs are in another country.

Although the Global South consumes just a minority of the world's pesticides, the vast majority of pesticide poisonings occur there. At the same time, there are many obstacles to a poor farmer or worker filing suit in his or her country, including weak legal systems, inability to hire lawyers on a contingency fee basis, no pre-trial discovery or class actions, low caps on damage awards mandated by statute, and corruption. Lack of recourse to the formal systems of justice at home by individuals or groups in the South has shielded from legal damages transnational corporations whose products or manufacturing processes injure people or contaminate the environment. Theoretically, FNC requires a U.S. judge to find that the foreign country court system provides an adequate alternative forum before the case can be dismissed and sent back to where the injury occurred. But based on *forum non conveniens*, a New York federal court judge sent victims of the Bhopal disaster back to India, where there was less opportunity for injured plaintiffs to receive a fair hearing.

More recently, however, a wave of legal actions against U.S. and British companies selling toxic products or processes overseas has pierced this shield. In several U.S. court cases, the courts have quietly begun to refuse to apply FNC. In the U.K., FNC was overturned, allowing workers at a South African plant to sue a British chemical company. Due to the dismissal

of cases from U.S. courts using the FNC doctrine, the Organization of American States has drafted a convention to address the issue. Nicaragua adopted a law requiring defendant companies to post huge bonds as part of any Nicaraguan court proceeding, in the event that they use FNC to dismiss a case against them in the United States. In the European Union, the *Brussels Convention on Jurisdiction and Enforcement of Judgments in Civil and Commercial Matters* establishes the principle that defendants can be in the courts of the EU member states where they are domiciled, and FNC does not apply. A wave of legal actions, attempting to hold northern companies legally accountable in their home country courts for health and environmental damages abroad will likely gain significant momentum in coming years. If so, pesticide manufacturers could face a wave of legal actions from injured workers around the world.

### *FIFRA Preemption*

FIFRA (Federal Insecticide, Fungicide and Rodenticide Act) is the primary pesticide law in the U.S. Among many other aspects of pesticide manufacture, formulation, marketing, sale, storage, use and disposal, FIFRA governs the way a pesticide must be labeled and packaged, the permitted uses and use restrictions that each label must list, etc. Until the last few years, federal and state courts have held that FIFRA preempts most state tort actions alleging harm caused by pesticide products. In other words, once the EPA registered a pesticide as an "economic poison" and approved its label, persons who were injured by that product were barred from claiming that they weren't properly warned of the toxic hazard.

Recently however several courts have ruled that FIFRA does not preempt claims alleging failure to warn of the toxic hazards of pesticides, because state common law actions are not "requirements" within the meaning of FIFRA's express preemption provision. The U.S. Supreme Court is likely to review one of these cases on appeal soon. The California Court of Appeals and the Indiana Supreme Court have continued a trend among lower state courts, holding that design defect and breach of implied warranty claims are not preempted by FIFRA because such claims are neither based upon nor need to be proved by reference to pesticide labels.

*(continued on page 10)*

# RISKS

The group at Pocantico spent considerable time becoming familiar with the types of risks and liabilities that the industry faces. The sense of the group was that these risks could effectively be grouped into six categories: legal liabilities, market trends, regulatory trends, quality of management, reputational risks, and long-term uncertainties. A subsequent section of this report describes how these risks can be communicated to actors in the finance community.

## ACCELERATING LEGAL LIABILITIES: TRENDS IN PRODUCT LIABILITY SUITS

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Pesticides are inherently risky products. Pesticide producers are always at risk of product liability claims due to poisonings, deaths, and other damages. Product-liability suits against the pesticide industry as a whole, although relatively limited in their size and scope to date, have the potential to become a major threat. In addition to the legal challenges involved in such suits, there are broader questions about access to the justice system in a globalized economy. Much of the harm caused by pesticides takes place in developing countries, among workers who may have little access to formalized systems of justice. Establishing jurisdiction for civil actions is fraught with difficulties, and is often compounded by justice systems that are weak, corrupt, or vulnerable to political pressures.

Historically, pesticide companies have found protection from product liability claims in one of three ways. The first is the doctrine of *forum non conveniens*, which provides that the venue for a given case can be moved in the interests or for the convenience to parties and witnesses. The second is known as “FIFRA pre-emption.” Pesticides are regulated at the federal level in the U.S. under the Federal Insecticide, Fungicide and

Rodenticide Act (FIFRA), first passed in 1947. FIFRA sets requirements for the testing, registration, use classification, and labeling of pesticides. Finally, pesticide companies have successfully argued that damage was caused by misuse of their product, and thus the liability falls to the user or agent responsible, and not to the producer. (See box on *Legal Liabilities on pages 8 and 10*).

Several recent cases have undermined the traditional defenses used by the industry against product liability claims. As more cases are pursued, pesticide companies may face increasing liability for their products. Legal activists have also been working to hold the pesticide industry, especially transnational corporations operating in a global economy, accountable in other ways, therefore increasing the trend of upholding the doctrine of “the polluter pays.”

## MARKET TRENDS TOWARDS ORGANICS AND IPM

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Market trends are a key concern for potential investors. If a technology or a group of products is becoming obsolete or losing consumer favor, a company whose business strategy depends on that technology or product “market-leader” will usually not fare well over the medium-to long-term. Trends in agricultural product markets are obviously relevant to pesticide markets in particular. Farmers are the immediate consumers of pesticides, but their production choices are driven by the preferences of those who purchase the food and fibers that they grow. Several trends developing in these markets indicate a growing public unease with pesticides (and with genetically engineered crops), and a clear preference for foods grown in a less damaging, more sustainable way. These trends are visible at the level of the individual consumers’ increasing preference for organic foods, and at the supplier level among food processors and retailers. For example:

### Overcoming Products Liability Defenses

In *Guzman v. Amvac*, the Washington State Supreme Court ruled in 2000 that: (a) while pesticide benefits may outweigh risks, this is not always the case, so each pesticide must be judged on its own risk and merits, and that (b) a safe alternative product, versus an “alternative design” of the same product, may be admissible as evidence against an alleged unsafe product. In this case—brought by field workers injured by exposure to phosdrin, an extremely acutely toxic pesticide—the company’s FIFRA preemption claim was defeated. Amvac argued that: (i) pesticides are dangerous products exempt from product liability, and (ii) design defect claims require a showing of an alternative design of the product rather than alternatives per se. In a precedent-setting ruling, the court rejected both arguments. The company later settled out-of-court with the farm workers for a confidential sum, thought to be substantial.

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- In 2001, the Co-op Group—one of the U.K.’s top five food retailers and Britain’s largest grower—announced that it was “banning over 20 pesticides used for food production worldwide amid rising consumer concerns about the impact on human health and the environment of chemical residues.” The ban applies not only to all fresh produce, but also to canned, frozen and processed foods. Six products still permitted for use in the U.K. are among the pesticides for which the Co-op Group will show zero tolerance. The Co-op Group also seeks to impose “restrictions on the use of over 30 other chemicals where the Co-op will ask growers to use more benign alternatives.” It has also embarked on a stringent testing program for pesticide residues to ensure implementation by their growers and suppliers around the world.
- Food processors and retailers are coming under increasing pressure to incorporate Integrated Pest Management (IPM) standards into their production protocols and standards. Large processors such as Campbell’s and Unilever are implementing such measures.
- The market for organically grown produce is growing rapidly. Although currently representing just a small share of overall food sales, the relative growth rate of organic foods—largely due to consumer concerns about food safety and

harmful pesticide residues—is impressive. According to the Food and Agriculture Organization (FAO), “sales values [of organic foods] have increased in most markets at an annual growth rate of 20 to 30 percent” over the last decade; this trend has accelerated since the FAO report was published. “The organic fruit and vegetable market offers significant potential for countries to increase their export earnings and diversify their agricultural base,” states a November 2001 press release from FAO at the launch of a new report, “World Markets for Organic Fruit and Vegetables.” Consumer polls in the U.S., U.K., Japan, and the EU show increasing concern about pesticides and the embracing of organic produce as a safer alternative.

- The use and acceptance by consumers of both “ecolabels” and “fair trade” designations is expanding. Retailers can increasingly market the particular qualities associated with these specialty labels in the expectation that the claims can be verified and that consumers understand what the label represents. The Fair Trade labeling organization recently issued a guideline stating that no dangerous pesticides (including approximately 100 pesticides classified by the World Health Organization as Class 1a [extremely hazardous] or 1b [highly hazardous]) can be used in the production of an item seeking the Fair Trade label.

Based on these examples, there is ample reason to believe that the market for pesticides will shrink with decreased public acceptance of the risks and costs of pesticide use.

## REGULATORY TRENDS AWAY FROM PESTICIDE USE

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Regulatory trends play a critical role in determining a company's future value. Since regulations can greatly alter the costs of doing business and the marketability of certain products, any uncertainty in the regulatory environment should be of concern to investors. With the trend toward increasingly stringent regulation of pesticide use in both the developed and developing world, the picture for those investing in agrochemicals is not encouraging. Europe, in particular, is leading the way. European Union (EU) regulations are increasingly establishing liabilities for pollution caused by pesticides, affecting both pesticide sales and creating legal liability costs for the industry (*see box on page 12*). In addition to the dramatic changes in Europe, the following trends should be borne in mind:

- Both the EU and the U.S. are reviewing lists of registered pesticides with an eye toward reducing use of these products. In the EU it is anticipated that this review will substantially reduce the number of pesticides re-registered for use beyond 2003. And as residue tolerance levels are revised downward, markets for pesticides phased out in the EU come under pressure in countries exporting to the EU. Review of product registration rosters may lead manufacturers to withdraw applications, if they believe there is little chance that the product in question can be reregistered based on the new criteria.
- In the U.S., the 1996 Food Quality Protection Act EPA has completed FQPA here In the U.S., the Food Quality Protection Act (FQPA) passed in 1996 requires EPA to establish new safety standards that more adequately protect children from pesticide exposure, and then reassess permitted pesticide uses and food residues according to these standards within 10 years. The law mandates that EPA focus on pesticides considered most hazardous to children, a sensible strategy widely endorsed by advocates (and dubbed "worst first" by Consumers Union). Lawsuits and settlements have been and continue to be required to ensure even lackluster progress in

implementing FQPA, which is bitterly opposed by the industry and conventional agricultural interests. Still, the law already has forced EPA to ban all home and garden uses of two widely used insecticides and eliminate or reduce some 2,000 food residue limits to date. EPA has also been required to develop new assessment methods reflecting that because many dangerous pesticides act on the body in the same calculate exposures as unrelated individual events). Based on consent decree-driven deadlines and explosive new information being generated about pesticide impacts, health and environmental activists FQPA implementation to pick up speed in coming years, leading to many more cancellations and restrictions on pesticide use.

- National reviews of agriculture and crop protection policies over the past decade have sought to ensure the safety of drinking water supplies, enhance the sustainability of agricultural production, and respond to consumer concerns about pesticides in their food and environment. The Netherlands provides a dramatic recent example: its "Ten Year Policy on Plant Protection" aims for a 95 percent reduction in the environmental burden caused by the use of chemical pesticides, and asks farms to seek integrated pest management certification by 2010.
- In addition to national policies, there are trends toward more stringent pesticide regulation at the "sub-federal" level. For example, in addition to having tougher state pesticide laws as allowed under FIFRA, California has passed a number of other laws affecting pesticides. A case in point is California's Proposition 65, a voter initiative passed to address citizen concerns about exposure to toxic substances, including pesticides, that cause cancer or have reproductive toxicity. The law, which prohibits businesses from discharging such chemicals into sources of drinking water and requires that warnings be given to exposed individuals, effectively sets a higher regulatory standard for pesticide use and notification than those of the Federal government. California has frequently been the vanguard of progressive health, safety, and environmental regulation in the United States; laws first developed and "tested" in California are often advocated for and eventually adopted in other states and/or encoded into federal law.
- More and more public spaces, or places frequented by "vulnerable populations" (e.g. children, pregnant women, the elderly), are being designated as "pesticide free." This trend is most noticeable in schools. The Los Angeles Unified

## NEW EUROPEAN UNION DIRECTIVES COULD EXPAND LIABILITIES FOR CHEMICAL COMPANIES

New European Commission (EC) Directives in Europe will make it easier to hold agrochemical companies liable for pesticide contamination of water and primary agricultural products, as well as for potential damages from Genetically Modified Organisms (GMOs).

THE EU WATER FRAMEWORK DIRECTIVE establishes very high standards for surface and ground water quality, declaring that all water bodies must be of “good ecological status” within 15 years. It also gives local Water Boards responsibility for maintaining water quality, and makes them liable for the costs of sub-standard water quality. Cost recovery is based on the “polluter pays” principle. The Water Directive, by establishing clear lines of responsibility for water quality, prevents Water Boards, municipalities, and farmers organizations from engaging in the time-honored practice of passing responsibility for water quality from one entity to another. Henceforth, it is assumed that Water Boards will aggressively come after polluters for the recovery of costs associated with water quality enhancement and environmental restoration efforts. The EU Water Directive makes it possible to pass *unlimited liability* costs for contamination of groundwater and surface waters directly to pesticide users, and potentially to producers.

THE EU DIRECTIVE ON ENVIRONMENTAL LIABILITY covers damages made “to biodiversity protected at community and national levels, waters covered by the Water Framework Directive, and

human health when the source of the threat to human health is land contamination.” The Environmental Liability Directive also embraces the “polluter pays” principle, as well as joint and several liability. Under this new directive, those who use and regulate pesticides are now liable for the damage the chemicals cause—creating a much stronger incentive to curtail use. The Directive also states that “provisions are made to allow qualified entities, alongside those persons who have a sufficient interest, to request the competent authority to take appropriate action.” In plain language, this provision allows citizens and NGOs to instigate reviews of company and government actions.

AN EU DIRECTIVE RELATING TO PLANT PROTECTION PRODUCTS, published in June 2002, calls for the phase out of 320 hazardous pesticide active ingredients by July 2003. (Limited exceptions will apply until 2007.) Some of these products will likely be added to the list of chemicals regulated by the Prior Informed Consent (PIC) treaty, which can lead to an international phase-out of their use.

The EC has proposed extending the EU’s existing Product Liability Directive to include primary agricultural products (85/374/EEC). The Product Liability Directive requires the producer/importer to pay compensation if there is a link between the product defect and the resulting damage without the injured party having to prove negligence on the part of the producer/importer.

School District has banned the use of pesticides on school grounds, and such bans are pending in ten other states. At least 33 states have adopted regulations addressing protection of children by focusing on pesticide use in, around, or near schools.

- In the developing world, government-mandated IPM programs designed to reduce pesticide use have become more widespread. National IPM programs also help protect the health of farmers and farm workers, reduce the financial costs incurred by farmers; increasingly, such programs also assist farmers to gain new access or maintain existing links to export markets. Under these programs, farmers receive training in methods that significantly reduce the need for pesticide use. As these programs grow more widespread

and their success and cost-effectiveness become more obvious, markets for pesticides in the developing world will shrink. This is of particular importance because the developing world is now the only major growth market for pesticides.

- Improvements in developing countries’ ability to regulate occupational safety and health will also affect agrochemical markets, especially for the most toxic pesticides. Under pressure from FAO and thousands of sustainable agriculture advocates in North and South, availability of many now-common pesticides to any buyer will decrease as more and more are regulated as “restricted-use” products. This regulatory enhancement is a frequent first response to concerns regarding the health of those applying highly toxic pesticides, and when enforced, can

significantly limit the number of people with easy access to these chemicals.

These regulatory trends demonstrate a consistent and increasing concern about the costs and impacts of pesticides. Over time, these regulations will both reduce the markets for pesticides and attach higher costs and liabilities to their use.

## QUALITY OF MANAGEMENT

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Most serious investors and investment analysts devote significant effort to assessing the quality of a company's management, since that quality affects the ongoing financial welfare and competitiveness of the company throughout its operations. A widespread loss of confidence in corporate management is likely to contribute to a precipitous decline in share value.

Qualitative factors are inherently more difficult to assess than the quarterly profits and losses that go into a simple, short term, bottom line analysis. Nonetheless, even taking into account the subjective nature of qualitative evaluation, it was the sense of the group that certain patterns of corporate conduct on the part of agrochemical companies may serve as reliable indicators of a higher quality of overall corporate management. These potential indicators include: adhering to international codes and conventions and taking a leadership role in to the implementation of voluntary codes; adopting uniform company wide performance standards rather than defaulting to lower environmental and occupational health standards permitted by local regulations; demonstrating life-cycle concern for products; and achieving an above average level of transparency with respect to company operations.

Conversely, the kinds of pesticide abuses of concern to public interest activists may indicate a division-wide, or even company-wide failure of management. Because institutional investors (such as pension funds, mutual funds, foundations, and endowments) must be guided by their trustees' duty to prudently manage the assets under their control, these investors must seriously consider any demonstrable pattern of imprudent behavior by those who manage the companies in which they invest. It was the sense of the group that, in many instances, the patterns of irresponsible conduct by agrochemical corporations represent precisely the kind

of imprudent behaviors that give rise to fiduciary concerns, since these behavior patterns pose real risks of financial injury to investors as well as posing serious risks of harm to public health and the environment. Although there have been a number of instances where non-governmental organizations (NGOs) have brought information about corporate behaviors to the attention of financial analysts, resulting in revised performance predictions for a given firm, there has been little systematic effort to do so on an industry-wide basis.

The following examples demonstrate how the behavior of particular firms with respect to pesticide use may be indicative of a more general failure of management. Indeed it can be argued that most of the issues addressed in this section on "Risks" could be considered under the heading, "Quality of Management."

## COMPLIANCE WITH INTERNATIONAL CODES AND CONVENTIONS

Because the pesticide industry deals in products that are, by design, harmful to life, sales and use of these products are governed by both national and international standards. The extent to which companies observe or neglect these standards is a powerful indicator of management quality. Although they vary in form, focus, and type of compliance required, many such standards will include guidelines for reducing reliance on pesticides and minimizing the risks from pesticides to users, public health, and the environment. Others deal more generally with rules governing public-private sector partnerships, or are broad statements regarding corporate ethics, including issues such as transparency, conflict of interest, due diligence, and preventing corruption. While most of these standards are voluntary, some are legally binding, including two recent conventions with provisions requiring implementation by governments who have ratified them; these are discussed in the box on PIC and POPs on page 14.

Non-binding, "normative" standards can provide pesticide companies with a frame of reference for considering best practice, corporate responsibility, product stewardship, and good environmental management. These standards can also help investors evaluate the management strength and performance of individual companies, and provide a standard for comparing a

## PIC AND POPS

Two agreements negotiated in recent years should help reduce the global burden of hazardous pesticides (and other chemicals). Treaties on Prior Informed Consent (PIC) and Persistent Organic Pollutants (POPs) will enter into force when ratified by 50 signatories. Seventy-three states and regional economic organizations have signed the PIC agreement (the Rotterdam Convention); to date, as of July 2002, 23 had ratified it. The POPs treaty (the Stockholm Convention) has 151 signatories, with 16 ratifications (as of August 2002). Both treaties are intended to be international legally binding instruments.

The concept of "prior informed consent" is straightforward: importing countries—particularly those in the developing world—should have complete information about hazardous chemicals, including details of any bans or severe restrictions of such chemicals, prior to importing them. Shipment of such chemicals should proceed only after the importing country has acknowledged its awareness of such information and expressed a desire to receive shipments.

The Rotterdam Convention establishes a system through which governments can exchange information about chemicals they have found to be dangerous. If governments on two or more continents ban or severely restrict a chemical, a committee of experts in chemicals management elected by the Parties to the convention reviews the relevant data and determines whether the chemical is a candidate for PIC. The convention calls for equitable geographical distribution within the committee; a limited number of NGO representatives (both industry and public interest) are allowed to attend committee meetings as observers.

If the pesticide (or other chemical) meets the criteria outlined in the PIC convention, a document is prepared summarizing the relevant scientific, regulatory, and public health information, including IPM strategies or alternatives to the chemical. This document is circulated to a Designated National Authority in each participating country—usually a senior official from the national environment agency—who determines whether to allow continued imports of the chemical.

A developing country may also request that a pesticide be included on the PIC list if it is found to cause health or environmental problems under conditions of use. Details relating to the type of information required to support such a request, and the standards used in decision-making, are still under discussion. Manufacturers have expressed ongoing concerns about the standards and information used to determine that a chemical belongs on the PIC list, a process over which they would seem to have less influence than national regulatory processes.

If a company exported a PIC chemical to a country that has notified the PIC Secretariat that it does not want to

import that chemical, this would be a violation of the treaty, and as such would be "illegal." It is not clear what sanctions the treaty will impose under international law for violations. Legislation introduced to Congress for U.S. ratification and implementation of these treaties makes no mention of specific legal penalties for treaty violations. Nonetheless, this aspect of these agreements does heighten the necessity for companies (and exporting countries) to monitor compliance.

The particular aim of the Stockholm Convention is the elimination of toxic chemicals that are known to persist in the environment and to accumulate in air, soil, water, and the food chain. Seven of the nine pesticides currently identified as POPs are also included among the twenty-six pesticides on the PIC list. Many new chemicals, including additional pesticides, are expected to be added to the convention's official POPs list following the adoption of criteria and procedures for expansion beyond the original 12 compounds. However, the process for establishing these will not begin until the treaty comes into force and is likely to be a contentious one given the many interests involved.

Many governments have agreed to comply voluntarily with PIC treaty procedures prior to its formal entry into force, and a PIC Secretariat jointly shared by FAO and UNEP is already up and running.

Of the two treaties, PIC has the potential to encompass a greater number of pesticides, and is likely to have a significant impact on the international pesticide trade. Inclusion of a pesticide on the PIC list has at times been inaccurately described as a "worldwide ban" on this chemical, but PIC does not automatically trigger a process of global elimination. Nonetheless, because it encourages and facilitates review of existing national pesticide registration decisions, and improves communication regarding risks, implementation of the PIC procedure is likely to have a significant impact on global pesticide trade.

The explicit aim of the Stockholm Convention is to bring bioaccumulative toxics out of circulation, ending their production and trade. Signatories agree to phase out production and use of all chemicals included on the POPs list. (Public interest NGOs argued for the treaty language supporting this goal to be even stronger than it is.) However, parties may request exemptions; for example, China has requested permission to continue to use and also manufacture heptachlor.

As previously mentioned, this agreement is also legally binding—though what that means in practice remains to be seen. It should be also noted that neither the Stockholm Convention nor the Rotterdam Convention impose any enforceable standard of behavior on countries that have not signed them.

specific company's performance and standing to other firms in the industry. Such standards can indicate how companies are performing relative to international standards and norms—especially those espoused in the company's own literature.

Industry has offered its own set of standards for best practices. The Responsible Care® program was developed in 1988 by the American Chemistry Council (ACC) “to respond to public concerns about the manufacture and use of chemicals.” According to ACC literature, “Responsible Care® is advancing in 46 countries, representing over 85 percent of the world's chemical production.” The program is essentially an environmental management system for chemical manufacturers, and in fact, the ACC is working on a single audit process that will award both Responsible Care® and ISO14001 certificates. The ACC website describes the program as moving from a “process-based” to a “performance-based” focus. In their promotional literature and advertising for the program, the ACC has attempted to use the Responsible Care® program as evidence that the industry is capable of policing itself and does not require further governmental regulation. Some companies in their annual reports and SEC filings refer to their participation in the program as evidence of strong environmental management.

Another particularly relevant convention, with substantial normative force in the developing world, is the FAO's International Code of Conduct on the Distribution and Use of Pesticides (referred to as the Code of Conduct). CropLife International, the trade association representing the pesticide industry, has “actively supported the FAO Code of Conduct, and has made compliance with the FAO Code by national associations and their members a condition of membership.” Given the broad level of support for the FAO Code of Conduct, and the industry's professed desire to comply with it, the Code is a good measuring stick by which to evaluate company practice and management.

Feedback from the field, especially from developing countries, suggests that these standards of behavior and self-regulation are frequently ignored in daily practice:

- Guidelines for partnerships between international organizations and the private sector emphasize transparency and avoidance of conflict of interest. However, a review of partnerships with pesticide companies under World

Bank projects revealed broad conflict of interest and non-compliance with Bank safeguard policies. Similar concerns have been raised about partnerships with pesticide companies under the UN Global Compact.

- Companies have frequently not lived up to their commitments to “cradle-to-grave product stewardship” as described in Responsible Care® and other industry literature. As described later in this paper, there are serious problems with obsolete pesticide stocks in most countries. To date, pesticide manufacturers and distributors have strongly opposed efforts by FAO, World Wildlife Fund, Pesticide Action Network and others to increase industry's historically insignificant financial contributions to the disposal of obsolete pesticides in developing countries.
- The FAO conducted comprehensive reviews of the implementation of the International Code of Conduct on the Distribution and Use of Pesticides in 1987 and 1993. These reports show significant shortcomings related to trading practices, advertisement, collaboration to recall hazardous products, and label information, among other areas. Their findings are consistent with those documented by numerous NGOs and civil society organizations during the past two decades; ongoing advertising of unsubstantiated claims is among the persistent problems documented by such monitoring efforts.

Properly documented and publicized, such cases would demonstrate that many companies are out of step with internationally accepted standards and norms for good management and corporate responsibility. This issue comes up again in the section on reputational risks below.

## PRODUCT USE IN DEVELOPING NATIONS AND CONSISTENCY OF CORPORATE BEHAVIOR

Many of the problems discussed above regarding violations of codes and conventions relate more generally to the inconsistencies and double standards employed by the pesticide industry in dealings with developing countries. Perhaps the most famous example is that of the “Circle of Poison,” where pesticides banned in industrialized countries are nevertheless produced there and then exported for use in developing countries, only to be re-imported to the developed world as residues on foods. This tidy concept has captured the public's imagination, but double standards and inconsistencies

## CONDITIONS OF PESTICIDE USE IN DEVELOPING COUNTRIES

The idea of the “Circle of Poison” usually refers to pesticides that have been banned in the industrial North, but are still used in the Global South. In fact, relatively few pesticides are actually banned; many more are restricted with respect to uses. Use can be restricted to particular applicators, or such restrictions can refer to conditions of use. Monitoring of actual field conditions in developing countries universally reveals serious obstacles to protecting human health and the environment from significant pesticide damage, including some or all of the following:

- A lack of protective clothing and face masks for pesticide applicators.
- A lack of water for washing after spraying, or for laundering work clothes.
- Absence of a separate storage facility for pesticides

- Absence of a separate storage facility clothes used in spraying pesticides
- Absence of disposal facilities for either large obsolete stocks or for small containers
- Reuse of pesticide containers for storage of food and water
- A lack of access to health care services
- Poor literacy levels, making complex labeling instructions meaningless
- Poor quality (leaking) application equipment, and lack of equipment maintenance

There may be formal legal requirements for the provision of storage facilities, access to health care, etc., before certain restricted pesticides can be sold—but such requirements tend not to be heeded by those actually responsible for marketing pesticides to users.

are much broader and much more damaging than the “Circle of Poison” concept conveys.

Whenever a pesticide is restricted or banned for actual or potential health or environmental problems in a particular locality, data exist to demonstrate reasons for the ban. At the very least, it must be considered ethically questionable to continue marketing those chemicals in countries that lack the ability to effectively regulate or enforce restrictions on their use, or that have not yet performed the local tests likely to result in a ban. Nonetheless, companies routinely and aggressively market chemicals that they know have serious human health consequences to people in the developing world. (*See box above.*) The high proportion of women and children in the agricultural workforce in the developing world, who often perform such tasks as spraying pesticides or picking crops soon after they have been sprayed, brings additional concerns in this regard.

In response to widespread public concern about these practices, many companies have embarked on “Safe-Use” programs designed to train growers in developing countries on how to handle and apply these pesticides. There is a substantial body of literature showing that Safe-Use training does not provide workers with adequate protection. One industry-funded report even stated that any pesticide manufacturer that cannot guarantee the safe handling and use of its toxicity Class I products should withdraw these products from the market. A particular concern for high-toxicity

pesticides is also reflected in policies of the World Bank, the Organization for Economic Cooperation and Development (OECD), and the FAO.

### DISPOSAL OF OBSOLETE STOCKS

Obsolete stocks of pesticides are a growing international environmental health problem. The FAO has documented more than 47,000 tons of obsolete pesticide stocks in 53 countries, but this is far from a complete inventory; global estimates suggest that the actual amount of obsolete stocks may be closer to half a million tons. It is likely that nearly every developing country has obsolete stocks of pesticides, and clean-up costs range from \$2,500 to \$5,000 per ton, depending on volume and circumstances.

Pesticides become obsolete if their use is banned while the product is kept in store, or if a product has deteriorated due to poor storage. In some cases pesticides were imported (frequently under “foreign aid” programs) to combat a particular pest emergency that never came to pass. Some stockpiles have been accumulating for as long as 40 years. Frequently these stocks are not stored securely and may cause environmental contamination and human health problems.

Regardless of how these obsolete stocks come into being, governments generally feel that companies themselves should bear a significant share of the disposal responsibility for them—particularly if supplying

companies irresponsibly pushed to have them imported in the first place. For example, company representatives or others that stand to gain financially may overestimate the amount of a pesticide needed for a particular project or pest outbreak; sometimes, poorly-supervised company agents will suggest chemicals that are not technically appropriate for a given agricultural project. There are also cases where companies have explicitly used donor projects or loans to off-load stocks that are about to be banned in a developed country. Yet companies have adamantly refused to contribute significantly to the clean up and disposal of their stocks. Of the \$30 million that has been spent worldwide in the last 12 years on the disposal of obsolete pesticide stocks, the pesticide industry has contributed less than one percent of cleanup costs.

While there is currently no legal mechanism to require companies to take responsibility for their role in handling obsolete stocks, there is growing public pressure for companies to live up to their own claims of “cradle-to-grave” product stewardship and contribute to clean-up and disposal. A continuing refusal to accept responsibility and to play a meaningful role in reducing the problem creates a reputational risk and demonstrates a failure to meet the principles of corporate environmental management systems, provisions of the FAO Code of Conduct, program guidelines for Responsible Care, and other relevant standards.

#### COMPLIANCE WITH EXPORT LABELING AND SHIPPING

Arguing that it is unfair for competitors to have ready access to details regarding their production and trade, pesticide companies have sought to have export labeling and shipping notification requirements considered “confidential business information,” not to be shared with the public. This presumption prevails at the global level. Even in the case of international treaties intended to reduce or eliminate trade in specific chemicals, the industry has insisted that it will release only limited information regarding production and trade of the target chemicals.

Huge quantities of chemicals are shipped interstate and internationally without adequate labeling and/or with product documentation that is out of compliance with legal requirements. It is estimated that, from 1992 to 2000, approximately 3.8 billion pounds of pesticides—63 percent of total exports—were not

clearly or specifically identified in shipping manifests. Many products are shipped unlabeled or are labeled incorrectly. It is likely that a significant percentage of these products would qualify as “hazardous materials” and thus would be required under federal regulations to specifically name the product in shipping documents. In addition, the Hazardous Material Regulations of the Code of Federal Regulations set out specific requirements for interstate shipping of chemicals, covering issues such as appropriate classification, packaging, labeling, and training for persons who transport the materials or prepare them for shipment. A significant percentage of the 1.5 billion pounds of pesticides exported during the 1996–2000 period were identified only as “weed killing compound” or “pesticide” rather than by specific names.

Federal regulations also state the type and adequacy of emergency responses that must accompany any hazardous material shipment. A lack of adequate information increases the likelihood of massive damages and liabilities associated with a spill or other emergency. Because the U.S. lacks a centralized database for tracking international pesticide shipments, it is difficult to fully assess how often these regulations are consistently met. In any event, shipping unlabeled hazardous substances either out of the country or interstate is illegal. Irregularities in or an absence of labeling can raise the costs of disaster response, thus increasing exposure to liabilities, and poor labeling clearly indicates poor implementation of environmental management and quality control systems. The extent of problems, including unknowing violation of the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) and local law resulting from import of products incompletely or incorrectly labeled, has not been investigated. That these commodities are poisonous in every case—the question only being the degree to which they are poisonous—should serve as adequate justification for full disclosure of production and trade figures. It would be reasonable to question corporate managers that tolerate or encourage lower standards of disclosure.

#### OTHER CONCERNS

In addition to the issues raised above, several other concerns were touched upon at the Pocantico meeting. Participants cited informal reports suggesting that the bribing of foreign officials in order to win supply contracts, ease import licensing, or to evade health and

environmental regulations is still widespread. A U.S. statute, the Foreign Corrupt Practices Act, prohibits bribing foreign officials. For obvious reasons the extent of this problem is not well documented, and therefore little attempt was made at the meeting to elucidate illegal business activities as a risk under “quality of management.” Meeting attendees knowledgeable about the chemical trade also suggested that pesticide smuggling is big business; whether or to what extent there is corporate complicity in this smuggling is unknown.

Another risk mentioned is the trend toward increasing conflict of interest disclosure requirements in peer-reviewed journals regarding sources of research funding, which could affect scientists who, concerned for their own reputations, may prefer not to participate in research programs funded by pesticide companies.

## REPUTATION MANAGEMENT

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All of the concerns and behaviors described in the above section would risk damaging name brands and corporate reputations. The idea of reputational risk is difficult to define but is becoming increasingly accepted as an important business issue. This risk has been more obvious for consumer product companies: campaigns against Nestle and other corporations have shown that concerted public education and media outreach efforts can have a lasting impact on a company’s reputation. This, in turn, can affect a corporation’s market share, damage investor relations, and hinder its ability to move into new business areas and attract quality employees. Of course, corporate image and reputation are important for all companies, not just those that have retail product brands. This can be seen from the fact that several of the major pesticide producers have recently attempted to “reposition” themselves as “life science” companies—a generic but appealing term, behind which it is more difficult to perceive an explicit association with chemical pesticides or genetically engineered crops.

Reputational risk is an area where NGOs and public interest activists have had substantial impact. Establishing reputational risks requires working to document and dramatize the bad actions of particular companies to the public, as well as to document and communicate bad press and on-going public concerns to company managers and investors. NGOs have used this strategy very effectively in other sectors. For exam-

ple, a coalition of NGOs successfully lobbied Home Depot to halt sales of wood from endangered rainforests, and to give preference to sustainably harvested wood products. Treated lumber manufacturers and retailers have also been persuaded by public interest activists to stop stocking lumber treated with chromated copper arsenic and other arsenic compounds. These campaigns have involved a combination of “street theater” tactics at Home Depot stores, media, shareholder activism, and dialogue with senior management—but also the provision and promotion of viable alternatives.

“Fairness” is another area of strategic impact. Public opinion in industrial countries is increasingly swayed by arguments that companies should hold themselves to the same health, safety, and ethical standards abroad that they observe at home. A law pending in the Netherlands, for example, would require Dutch corporations to apply prevailing domestic standards to operations worldwide. Arguing that access to global markets entails a global sense of responsibility, activists are increasingly urging companies to fully embrace the normative standards” hammered out in international fora, particularly those convened under United Nations auspices.

The pesticide industry, and food and fiber companies further down the production chain, may be quite vulnerable to issues of reputational risk. Many of the issues described in the above section—as well as more common concerns about lobbying activities, labor relations, and environmental damages—may cause profound reputational risks for companies that define their missions narrowly.

## RISKS FROM LONG-TERM UNCERTAINTIES

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Participants at the Pocantico meeting examined many issues of pesticide manufacture and use that should concern investors, even if the immediate financial impacts are unclear. These issues are being raised with investors even as our collective understanding changes of what fiduciary responsibility actually entails.

## GAPS IN SAFETY TESTING

The approval and registration of pesticides in the United States is managed primarily under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA).

FIFRA, which sets requirements for the testing, registration, use classification, and labeling of pesticides, has been amended many times since it was first passed in 1947; it is now administered by the Environmental Protection Agency (EPA). With EPA oversight, many investors and consumers believe that pesticides on the market are safe, or at least that their risks are well known and managed. But this is not necessarily true. FIFRA mandates that registration decisions be made using pseudoscientific risk/benefit analyses that give greater weight to benefits and costs to specific manufacturers and users of pesticides than those that accrue to the public. Not surprisingly considering both the financial stakes involved and the costs of following and effectively participating in FIFRA processes, pesticide testing and regulatory decisions are influenced more easily and often pesticide manufacturers and users than by representatives of consumer organizations, exposed workers, vulnerable populations including children and health affected groups, health specialists or wildlife and environmental groups (for example).

Pesticide testing requirements are extremely complicated and technically arcane, and subject to different interpretations of adequacy and veracity. The ever growing list of products once judged beneficial and harmless enough to be registered under FIFRA and later discovered to have serious health and/or environmental consequences begins with DDT. Furthermore, the statute requires comparing health and environment risks, to the aggregate financial benefits from pesticide use. Not only is the former more difficult to quantify than the latter, the resulting figures, like apples and oranges, and not strictly comparable. Public interests activists suggest that this approach creates a strong bias toward product approval, even in the face of considerable scientific uncertainty, and propose the “precautionary principle” as a preferable conceptual framework for FIFRA (and other laws with important environmental and health implications).

In addition to concerns over the conceptual framework underpinning the registration process, there are some specific gaps and structural concerns that weaken the safety testing system:

- Although in 1972 FIFRA was amended to require all pesticides used in the U.S. to be assessed for long-term environmental and human health impacts, many pesticides in production have not gone through that level of

assessment. Pesticides that were registered before 1972, when regulations were significantly less rigorous, were supposed to be re-registered under the new guidelines. However, that process has been extremely slow, and consequently many pesticides still on the market have not been adequately re-tested for long-term environmental and human health risks.

- Testing of chemicals is not actually performed by the EPA. In the interests of “commercial security,” companies perform those tests in-house, and submit their results to the EPA for review. This system creates a great deal of leeway for companies to choose which results and which data sets to submit. This means that the EPA may be approving and registering pesticides on incomplete or possibly even misleading information, sending to market pesticides that may in fact pose significant health risks, and creating large liabilities for the companies involved. Without a more stringent system of third-party review and testing, the risks posed by pesticides will not be well known and managed. It is worth noting that in-house testing of asbestos (and tobacco) failed to effectively prevent product-related injuries—or to prevent lawsuits resulting from these injuries.
- Pesticides produced only for export are not required to go through the safety testing required for U.S. registration. However, these chemicals are still manufactured and transported within the U.S., creating the same risks of exposure and contamination.

#### DISASTER RESPONSE, DISPOSAL, AND CLEAN UP COSTS

By far the best-known case of widespread harm caused by pesticide manufacture is the case of the 1984 explosion and release of toxic gas from Union Carbide’s plant in Bhopal, India. While Union Carbide settled with the government of India, the case nonetheless has dragged on in various courts since then. The Bhopal incident did lead to changes in how agrochemical firms viewed their liability—most companies moved to isolate, to the maximum extent possible, the legal liability for particular manufacturing plants or subsidiaries from the parent corporation as a whole.

The body of law regarding this restricting of legal liability is quickly evolving. Disposal costs, procedures, and liabilities are also changing rapidly. It has become much more difficult for industrialized nations

to export hazardous wastes to the developing world. Just as firms in other industries have had to shoulder major clean up costs for oil spills and other disasters, it should be expected that pesticide companies would also be liable for such costs in the event of a major spill.

Finally, it must be acknowledged that national security concerns now extend to the possibility of attacks on chemical industry production facilities. Unfortunate and unfair as this may be, companies that

produce or store large quantities of pesticides are exposed to additional risks (and costs) associated with the potential for terrorist use of these materials. Lawmakers are making their presence known in this field: a bill pending in the Maryland State Legislature would require background checks on anyone seeking access to restricted use pesticides. Other risks—termed “Unwelcome Surprises”—are described in the box below.

## UNWELCOME SURPRISES

In addition to known data gaps, researchers continue to bring forward unexpected data about pesticides. These revelations serve as a reminder that important questions often go unasked before new chemicals are introduced into the environment and the food chain. In the last decade, such revelations have included:

- The emergence of a previously unexamined category of risk—hormone disruption—for which few pesticides have been tested. This emerging body of data has sent shock waves throughout the international environmental and policy communities, in large part because effects have been noted at exposure levels as low as parts per billion. In addition to pointing to the need for more research regarding such effects, these findings highlight the weakness of relying upon cancer as the main endpoint in risk assessments.
- Research in recent years, including a groundbreaking study from the National Research Council, has demonstrated that childhood exposures to pesticides is associated with increased cancer risk. With these findings came the realization that safety thresholds for childhood exposures had never been evaluated as part of EPA’s registration process. For decades, then, pesticide products flooded onto the national and international markets whose effects on this particularly susceptible population were unknown.

- A report published by the World Resources Institute raised the possibility that pesticide exposures, by reducing immune function in already weakened populations in developing countries, might be contributing to excessively high death rates from infectious diseases in these regions.
- It has been discovered that pesticide overuse is contributing significantly to an international decline in the population of insects, birds, and other animals that perform pollination functions, frogs and other amphibians, and other animals. The economic value of animal pollination to world agriculture has been estimated to be \$200 billion per year. One recent effort to assess the economic significance of this newly identified problem concluded, “serious problems for world food supply, security, and trade could be in the offing if current declines in pollinator abundance, diversity, and availability are not reversed.”

Many pesticide risks may remain incompletely described or still unrecognized. Certainly there are many examples from other products of risks that were underestimated or initially not observed, indicating that precautionary approaches are a far more appropriate and serviceable basis for pesticide regulation than the risk/benefit framework underpinning most national systems and trade agreements.

# REACHING THE MARKETS

The group that gathered at the Pocantico Conference Center to consider the risks described above also addressed the question of whether these risks are adequately acknowledged and accounted for in financial markets. The sense of the group was that improved communication regarding risks is badly needed. Continuing lack of awareness in the finance community with respect to these risks allows corporations to pursue “business as usual,” including routinely marketing extraordinarily toxic chemicals and taking advantage of under-regulated developing country environments. While ongoing regulatory changes and public actions can help to curtail some of this irresponsible behavior, it is not sufficient to fulfill the demand for improved corporate accountability and disclosure now growing among investors. To protect investors (and public and environmental health), and to create market incentives for developing sustainable alternatives such as IPM and organic agriculture, it is essential that financial markets accurately account for the true costs and risks of pesticides. Improved communication of such information will also fill an important gap in the materials available to the public regarding pesticides.

In order to achieve more accurate accounting of these risks and costs, participants strongly recommended the following actions:

- Document the true extent of the global risks and liabilities associated with this industry, and seek legal and financial accountability.
- Increase the Socially Responsible Investment (SRI) community’s engagement with the pesticide industry and related issues.
- Use the power of private and institutional investment monies to move the agricultural sector away from a financially risky and environmentally destructive over use or abuse of pesticides and toward more socially responsible, beneficial, and accountable industries and activities.

- End direct and indirect public subsidies to the pesticide industry and increase public support for sustainable alternatives.
- End public agencies’ partnerships with pesticide companies wherever these partnerships create a clear conflict of interest or violate the codes of the public agency in question.
- Use the pesticide industry as an important “test case” to enhance current efforts to improve corporate disclosure, governance, accountability, and ethics.

Any attempt to use financial leverage in the ways described above must be multi-faceted and reach a wide variety of audiences. Different strategies are required to reach these different aims, and to bring the different constituencies into stronger alignment. In considering what strategies would be most effective, the group looked at several key actors in the financial markets.

## THE SOCIALLY RESPONSIBLE INVESTMENT COMMUNITY

The research and investment companies involved in the SRI movement have helped lead the way in making financial markets account for the environmental and social costs of different industries. Different SRI firms use different strategies. These strategies include screening (choosing not to invest in companies that create environmental and social risk, or investing only in those companies considered “best in class”); shareholder activism (seeking to improve corporate behavior through dialogue and resolutions); and community development (investing in opportunities that support communities and sustainable development). Although most SRI funds are not invested in pesticide companies, they are well positioned to play a lead role in strategies involving shareholder activism, and in improving the level of due diligence on pesticide com-

panies. Other SRI investors, pursuing a “best in class” approach, can help strengthen support for international codes of conduct and other mechanisms that distinguish pro-active management from mere legal compliance.

#### PENSION FUNDS AND OTHER INSTITUTIONAL INVESTORS

Pension funds and other institutional investors are a strong force in financial markets, commanding (for example) 30 percent of invested capital in the New York Stock Exchange. They represent concentrations of investor power, and thus are an easier target for public interest activists than are individual investors. Many pension funds are quite sensitive to concerns not considered strictly financial. For example, public pension funds in some states have a mandate to invest in ways that benefit the state, and might view support for companies producing products that degrade groundwater and surface water quality (for example) as inimical to state interests. Foundations, particularly those with programs in health, environment, or rural development, should be willing to vote their proxies or invest in ways that support their program goals. Universities can come under pressure from the student body to use their endowments and consumer power in socially responsible ways (as has been demonstrated both in the fight against apartheid in South Africa, and more recently in anti-sweatshop campaigns). Given these other interests, institutional investors may become allies for shareholder activism, and potentially for pursuing divestment.

#### SHAREHOLDER ACTIVISTS

In addition to SRI and institutional funds, there are other types of shareholder activists that could impact investment patterns in the pesticide industry. There is presently a great deal of shareholder activism on issues of good corporate governance, including improved reporting, which would overlap with efforts to more accurately reflect the disclosure concerns discussed here.

#### ANALYSTS

Financial analysts play an essential role in the financial markets, researching and valuing companies according to various models, and providing recommendations to

fund managers to buy or sell the stock. How an analyst perceives and values a company can affect how its stock is treated on the market. While analysts work in an information-rich environment, they often rely primarily on company-based sources and may not be aware of broader contextual issues, or of the views of other stakeholders. Analysts with interests in long-term market forecasting would be particularly interested in the kinds of materials and information presented here.

#### THE SECURITIES EXCHANGE COMMISSION

The Securities Exchange Commission (SEC) oversees the U.S. stock markets and regulates company-reporting requirements. There is an ongoing effort encouraging the SEC to improve enforcement of existing reporting requirements on social and environmental issues, and to expand and enhance these requirements. Working with the SEC could be important both in improving data disclosure and reporting across the industry, and in pursuing omissions or misleading statements by particular companies. The impact of impending regulatory changes in Europe may be considered as material business issues, subject therefore to disclosure. Recent events make it more likely that the SEC will have a stronger role in monitoring the corporate sector by adopting broader definitions and standards of disclosure.

#### PUBLIC AGENCIES

Public funding from governments and international bodies such as the World Bank continues indirectly to support the pesticide industry around the world. This support can be in the form of tax-breaks, subsidies, funding for “safe-use” programs, or procurement of products through foreign aid programs. International agencies such as the UN and the World Bank have begun to establish “public-private partnerships” with these companies, partnerships that provide positive public relations benefits to the companies, and sometimes help to open new markets for them. However, governments and public agencies are accountable to the public, and are required to act in the public interest. Multiple opportunities exist to work with governments and public agencies to re-direct these monies to more

sustainable alternatives. For example, improved implementation of World Bank Safeguard Policy 4.09, which requires the use of farmer-based integrated pest management strategies in the pest management component of any agriculture loan, is an important vehicle by which a public agency could assist in shifting this sector away from its current costly and damaging over reliance on pesticides.

### CONSUMERS

Consumers are important actors in corporate accountability efforts. Working with consumers is essential to raise social awareness around the health and environmental impacts of pesticide use. Consumers obtain investment advice and use financial service products; use foodstuffs and fibers that may be contaminated with pesticides; and may purchase other products sold by the same companies (e.g., Bayer Aspirin, DuPont cookware).

### INSURERS, BOND ANALYSTS, AND BANKS

Insurers may prove to be an interesting audience for pesticide concerns in two ways: as major investors and as underwriters of disaster insurance to specific companies. Indeed, the underwriting industry estimates the cost of complying with environmental cleanup costs and legal fees to be in excess of \$100 billion; insurance companies obviously have a strong interest in reducing such costs and fees. Bond analysts are at first glance an unlikely target audience. But several participants suggested that analysis done for bond markets is frequently both more thorough and more long-term in its orientation, which may suggest a direct interest in improving data disclosure requirements for companies floating commercial paper. Companies planning major new initiatives are likely to have a close relationship with one or more investment banks, so these banks may be an important future target.

## 2001 TOP SEVEN AGROCHEMICAL COMPANIES

The gap in sales between the world's seven largest agrochemical companies has narrowed, according to 2001 sales reports published in *Agrow: World Crop Protection News*. Swiss-based Syngenta continued to maintain highest revenues, with nearly \$5.4 billion in pesticide and seed sales. However, Bayer's purchase of the French company Aventis CropScience (formerly Rhone-Poulenc and Hoechst/AgrEvo) will increase 2002 sales of the German-headquartered company to over \$6 billion.

BASF, another German multinational, reported the highest revenue increase of 39.4 percent, primarily the result of its 2000 acquisition of Cyanamid, a U.S.-based agrochemical company. In 2001, BASF sales increased in North America by 65 percent, in Europe by 45 percent and in Latin America by 6.5 percent. Sales of BASF herbicides increased by 47.3 percent, fungicides increased by 27.5 percent and insecticide and other pesticides increased by 53.5 percent.

U.S.-based Dow AgroSciences also reported a significant increase in sales (11 percent), 9 percent of which is attributed to its recent purchase of Rohm and Haas, another American agrochemical firm.

Bayer and Aventis CropScience both reported steady increases in sales of herbicides and insecticides in European, Latin American, and North American markets. Bayer's top selling insecticides, Confidor, Gaucho, Admire, and Provado (all based on imidacloprid), increased in sales by 5 percent to \$540 million. Sales of Bayer's fungicide, Folicur/Raxil (tebuconazole) also increased by 5 percent to \$240 million.

Sales of Aventis' herbicides increased by 8.1 percent, insecticides increased by 7.5 percent, and fungicide stayed at 2000 levels. Aventis' top four pesticides—herbicides, Hussar (iodosulfuron-methyl sodium), Balance (isoxaflutole) and Liberty/Basta (glufosinate-ammonium), and insecticide, Regent (fipronil)—accounted for 47 percent of its 2001 agrochemical sales.

Despite maintaining the largest overall sales, Syngenta (formerly Novartis and AstraZeneca) suffered the

largest decrease of the top seven companies in 2001. The company lost money in Europe as a result of Brazilian currency exchanges and Argentinean credit policies, and because of reduced crop acreage in the United States. Syngenta seed sales dropped overall by 2.1 percent to \$938 million. However, sales of genetically engineered seed continued to increase and totaled 17 percent of seed sales.

The U.S.-based Monsanto suffered overall 2001 revenue losses of 3.3 percent, while sales of its flagship herbicide, Roundup (glyphosate), dropped by 8 percent to \$2.4 billion. Sales of Roundup decreased most significantly in Latin America and Asia.

### TOP SEVEN AGROCHEMICAL COMPANIES 2001 SALES

COMPANY	SALES BILLIONS OF US\$	CHANGE SINCE 2000
Syngenta (Swiss)	\$5.385	-8.5%
Aventis CropScience (French)	\$3.842	+5.0%
Monsanto (American)	\$3.755	-3.3%
BASF (German)	\$3.105	+39.4%
Dow AgroSciences (American)	\$2.612	+11.3%
Bayer (German)	\$2.418	+7.4%
DuPont (American)	\$1.917	-4.6%

Sources: *Agrow: World Crop Protection News*, March 1, 2002, March 15, 2002, March 29, 2002 and June 28, 2002.

*Global Pesticide Campaigner*, Vol. 12, Number 2, August 2002, Pesticide Action Network North America, San Francisco, CA pg. 26.

# STRATEGIES AND OPPORTUNITIES

Given the risks and liabilities outlined above, and the potential target audiences, the group identified several immediate opportunities.

## RESEARCH AND ANALYSIS

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Meeting participants agreed that a first and essential step is to improve understanding of the major pesticide manufacturers worldwide, manufacturers that currently control upwards of 80 percent of the global pesticide trade. (*See box on previous page.*) Several types of research, for several different purposes, are needed, including:

- A thorough assessment of their finances and financial accounting procedures;
- A thorough assessment of their product lines, past and current behaviors, and potential liabilities;
- Information on their corporate structure, including relationships to other companies, developing world subsidiaries, board members, conflict of interest policies, public relations profile, etc., as well as information on the internal corporate culture;
- The status of various mergers and divestitures, which has rapidly changed the face of the pesticide industry in recent years.

The “Big Seven,” along with other manufacturers, have made considerable investments of staff time and money in shaping the strategies and targets of CropLife International, the pesticide and agricultural biotechnology industry association. CropLife International was formally launched in June 2001 (the industry association was formerly known as the Global Crop Protection Federation). Its U.S. affiliate, CropLife America, describes its mission as representing the “developers, manufacturers, formulators, and distributors of plant

science solutions for agriculture and pest management in the United States.” Its member companies “produce, sell and distribute virtually all the crop protection and biotechnology products used by American farmers.” CropLife International will roll out a new, aggressively positive public relations initiative, “Promoting Capacity Building for Sustainable Agriculture,” at the Rio+10 World Summit on Sustainable Development.

Researching individual companies and their industry associations helps to identify areas of engagement. At the same time, research remains to be done to better understand the risks and liabilities described above, and their potential impact on business valuations. This type of research could include:

- Case studies regarding other products once in common use, later withdrawn due to health concerns, which led to massive industry liabilities. The best known examples are the asbestos cases.
- Studies of legal trends related to liability.
- Sector-specific research on the financial implications of environmental performance. An excellent example of such work is the World Resources Institute report on the pulp and paper industry.

Credible research is required for continued work on corporate accountability. Results must be prepared in formats most useful to target audiences, and thus different products may be needed to target the financial services community, the media, etc.

## ADVANCING SOCIAL REPORTING

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The Securities and Exchange Commission requires companies to disclose information judged material to its business concerns, so that potential and current investors have an accurate picture of the firm’s health.

The SEC has not, and probably cannot, provide a quantitative (numerical) definition of materiality; current regulations require disclosure of “information that a reasonable investor would be likely to consider important in the context of all the information available.” The SEC goes on to say that, “facts can be considered material if they bear on the ethics of management, its integrity, or its law compliance record, irrespective of the sums involved.” The requirement includes forward-looking statements, market uncertainties, and trends that may affect financial performance in the future.

However, many companies fall short of fulfilling these reporting requirements. Even when adequacy of compliance is more precisely defined, company reporting is often found to be lacking. For example, the SEC has stated that companies must report on any pending legal proceeding, specifically, “[e]nvironmentally related proceedings must be disclosed if: they are material; they involve a claim for more than 10 percent of current assets; or they involved the government and potential monetary sanctions greater than \$100,000.” Studies have found that companies often fail to report on legal proceedings fitting this definition. Superfund liabilities must also be disclosed, but frequently are not.

Improving data disclosure across the board is essential for improving the performance of financial markets and creating appropriate incentives for strong environmental management. Information disclosure has been shown to improve environmental management, and companies practicing improved disclosure are less vulnerable to adverse market impacts when outside information becomes available. Event studies show that stock market prices do react to environmental news, confirming that investors do consider environmental and social information relevant.

The pesticide industry in particular needs to improve its data disclosure, particularly in two areas: operating data and discussion of risks and uncertainties.

#### OPERATING DATA

Pesticide companies frequently do not disclose accurate data regarding their products, export practices, sales in developing countries, location of obsolete stocks, and production-related pollution issues. Activists, investors, and other stakeholders cannot adequately assess a corporation’s environmental management or risk exposure

without these data. For example, information about exports of pesticides is extremely difficult to pin down: aside from the inadequate labeling issues described earlier, some pesticide companies even withhold their names from shipping manifests.

#### DISCUSSION OF RISKS AND UNCERTAINTIES

Many issues regarding pesticide industry practices, as well as pesticide market and regulatory trends, are not adequately or accurately described within company reports. To take one example, in its 2001 SEC filing, Syngenta stated, “We are subject to stringent environmental and health and safety laws, regulations and standards which result in costs related to compliance and remediation efforts that may adversely affect our results of operations and financial condition.” But Syngenta made no mention of the new EU Directive on Environmental Liability, although it had filed a comment about the proposal when it was being developed; nor did it discuss specific changes in regulatory trends elsewhere in the world. The Syngenta report did take note of consumer concerns about biotechnology in agriculture, but made no mention of growing consumer concerns about pesticide residues in food.

Controversies surrounding specific products are rarely reported in company literature. Specific examples of this phenomenon include controversies related to molinate, atrazine, and paraquat. Syngenta acknowledged the risk of product liability lawsuits in its 2001 annual report, but concluded by describing its environmental management system as follows:

We designed our environmental management program with the aim of ensuring that our products and their manufacture pose minimal risks to the environment and humans. The crop protection industry is subject to environmental risks in three main areas: manufacturing, distribution and use of product. We aim to minimize or eliminate our environmental risks by using appropriate equipment, adopting “best industry practice” and providing grower training and education. The entire chain of business activities, from research and development to end use, operates according to the principles of product stewardship. We are committed voluntarily to the responsible and ethical management of our products from invention through to ultimate use.

This stance is reflected in the literature of most companies, and that of CropLife International. Agronomists, health professionals, and public interest activists ask that such statements be evaluated against some of the patterns of behavior noted above, such as promoting use of WHO Class 1 products in developing countries; manipulating procedures and rules to speed access to markets; providing financial incentives to decision-makers to over-ride health and environmental concerns; and refusing to assist in the disposal of obsolete pesticide stocks. In sum, critics of the pesticide industry suggest there is a major gap between stated corporate environmental management objectives and actual field practices. Although the SEC has been reluctant to enforce environmental risk reporting requirements, it is likely that a “reasonable investor” would be interested in information about the perceived gap between rhetoric and actual business practices.

### SEC INITIATIVES

There are several coalitions working to improve SEC guidelines on social and environmental risk disclosure, and to improve enforcement of regulations pertaining to these disclosure requirements. The Corporate Sunshine Working Group (CSWG), a coalition of more than 60 organizations, is urging the SEC to hold corporations accountable for reporting significant environmental expenses. The Social Investment Forum (the trade association of socially concerned investors) is also asking for SEC action on these compliance issues.

The CSWG notes that an EPA study of corporate compliance with the SEC’s Regulation S-K financial reporting requirements, found that 74 percent of publicly traded U.S. corporations have violated the environmental financial debt accounting regulations. Item 303 of Regulation S-K requires a “Management Discussion and Analysis (MD&A) in which companies are required to disclose known future uncertainties and trends that may materially affect financial performance.” World Resources Institute (WRI) has also paid careful attention to the SEC’s Administrative Proceedings, noting that “of the more than 5000 Administrative Proceedings initiated by the SEC over the last twenty-five years, only three are based on insufficient disclosure of environmental risks or liabilities.” In that same 25-year period, the SEC brought only one Civil Action against a company on the grounds of inad-

equately environmental disclosure. Enforcement activity in the environmental arena has been weakest with regard to MD&A disclosure of prospective issues and trends; WRI notes that “without such enforcement action, companies’ disclosure practices or compliance with existing rules are unlikely to improve.”

Another important effort has been the Environmental Fiduciary project of The Rose Foundation for Communities and the Environment. This project makes the financial case for incorporating environmental factors into portfolio management policies, and urges “institutional investors such as pension funds, foundations, and charitable trusts...(to) encourage good environmental performance in equities they own through specific portfolio management policies.” Socially responsible investor groups are also pushing the SEC on disclosure requirements. Amy Domini reports that Domini Social Investments has asked the SEC to require that all mutual funds publish their proxy voting policies and votes.

In conjunction with such efforts, the group at Pocantico found two approaches particularly relevant for advancing social reporting:

- Filing challenges and complaints with the SEC regarding specific omissions or misleading statements in a particular company’s filings. The SEC imposes specific requirements on the accuracy of communications associated with proxy fights, including information that a company may publish in response to a proxy. Increasing the number and specificity of challenges on these issues helps to build demand and momentum for change within the SEC. Such challenges can also be used in public information campaigns to bring attention to issues of corporate misrepresentation.
- Requesting improved guidelines for social and environmental reporting. Reiterating such requests alongside specific challenges would build public pressure on the SEC to improve reporting requirements and compliance monitoring.

### INVESTOR EDUCATION ON DATA DISCLOSURE

In addition to those at the SEC, there are ample opportunities to work with and educate investors directly about data disclosure problems. Several strategies were

discussed along these lines, including the preparation of “Addenda to the Annual Report.” These would detail for circulation to investors particular areas where the company has provided incomplete or misleading information. Working with shareholders to file resolutions requesting that specific reports and data be disclosed can also create pressure on companies, and lead to opportunities for dialogue with management on improving disclosure. Again, SRI firms are in the vanguard of this effort.

### SUPPLY CHAIN MANAGEMENT— INVESTOR AND CONSUMER ACTIVISM

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Although pesticide companies may not be particularly vulnerable to consumer pressures, their downstream customers are. As described in the section on Market Trends, major food and product retailers are moving toward tighter management of their supply chains so as to reduce pesticide contamination in their purchasing. This is part of a larger trend toward supply-chain management as a form of corporate responsibility. The Global Environmental Management Initiative, a consortium of 37 corporations committed to improving environmental management, recently published a primer titled, “New Paths to Business Value: Strategic Sourcing—Environment, Health and Safety.” This primer states, “today, most goods and services [that companies] procure have an impact on the environment and/or the health and safety of your employees, customers or surrounding communities. These impacts can affect the total cost of goods and services, the quality of your products, your ability to conduct business and the reputation of your company. Greater awareness of these impacts can increase the business value of your procurement decisions.” Kodak, Volvo, Ford, Proctor & Gamble, Toyota, Texas Instruments, and many other firms have pursued better supply-chain management, working with suppliers to improve corporate safety and environmental performance and/or to support “design for environment” production goals.

Given the trend towards supply-chain management, and precedents set by Campbell’s, Unilever, the U.K. Co-op Group, Fairtrade Label Organization and others with respect to pesticides, prioritizing work with food retailers, food processors, and fiber and clothing

companies to implement similar measures was suggested by participants at Pocantico. This strategy could be particularly conducive to shareholder activism, and is appealing to SRI funds that hold shares in food and fiber companies but not in agrochemical companies. While attention to biotechnology was beyond the scope of work for the group at Pocantico, several participants felt it imperative that concerns raised around supply chain issues also focus on issues related to the introduction and marketing of genetically engineered crops. Most major pesticide companies make questionable claims promote genetically-engineered (GE) crops as a means of reducing pesticide use. Furthermore, because GE crops present multiple environmental and ethical concerns, and serve to detract support from, and otherwise undermine farmer-centered IPM, organic and sustainable agriculture, and broader efforts to ensure food security. Thus participants noted that agricultural pesticide-related initiatives must also deal with GE issues.

### INCREASING FUNDING TO ALTERNATIVES

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Working with food and fiber companies on supply-chain management nicely complements the goal of increasing funding to more sustainable alternatives, including farmer-centered IPM and organic agriculture. As consumers drive food and fiber companies to use and produce products according to these principles and standards, farmers will have an increased economic incentive to pursue such alternatives. It is hoped that these companies may provide, or expand access to, training and support for IPM and organic agriculture. The group looked at several ways to increase public and private funding to promote farmer-centered IPM and organic agriculture:

- Pesticide companies actively solicit public capital (through bilateral aid programs, multilateral development banks, or Department of Agriculture programs) in support of their “Safe-Use” and so-called IPM training programs. As mentioned earlier, these programs can actually increase pesticide use, introduce small farmers to pesticides they cannot afford to use properly, and reinforce a “chemical-centered” view of agriculture. Chemical centered IPM considers pesticide use as the primary mode of crop protection, while ecologically-based IPM takes pest preven-

tion as the starting point. For instance, a tomato IPM program of AgroEvo in Brazil reduced the number of pesticide applications from 40 to 28, while Campbell's Soup achieved a reduction from 40 to 2 applications in Mexico by using an ecologically-based approach. In Brazil, farmers have remained heavily dependent on AgroEvo pesticides, and AgrEvo obviously has little incentive to promote the type of IPM used in this example from Mexico. Re-directing these funds to farmer-centered, ecologically-based IPM training programs, such as those run by the Global IPM Facility and other financially disinterested IPM programs, would promote better farm economics and reduced pesticide use.

- Removing existing subsidies and tax-breaks that benefit pesticide companies and redirecting them instead to organic and other least toxic, sustainable farmers and suppliers would help change the incentive structure to promote sustainable agriculture. Public information is needed to bring pressure on governments and public agencies to reallocate their subsidies and funding for research. One ongoing effort, Pesticide Action Network North America's "World Bank Accountability Project," attempts to push this largest of the multilateral development institutions to embrace organic and sustainable agriculture principles, better implement its own Safeguard Policy 4.09 on IPM, and clarify the nature of its partnerships with pesticide firms.
- As mentioned earlier, community development is one of the central tenets of socially responsible investing. Working with SRI funds to identify investment opportunities that support farmer-centered IPM and organic agriculture would be a natural fit for many funds, providing much-needed capital to those efforts. Efforts to broaden investor awareness generally can start with the SRI community.

## ADVANCING LEGAL PRECEDENT

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Clearly, establishing greater legal and financial liability for the negative health effects of pesticides is a very powerful way to change investors' perceptions of risk with respect to this industry. In recent years the level of legal activism regarding pesticide misuse has intensified. Groups such as EarthJustice and the Environmental Working Group have ongoing efforts to bring suits against industry actors and in so doing advance precedents that establish or expand legal liability.

One current focus is finding new legal avenues for foreign workers affected by pesticides. Efforts to find new legal strategies within the U.S. and Europe establishing the right to bring suit over occurrences in the developing world may broaden the liability applied to the pesticide industry. Of course, it is also necessary to increase public and investor awareness of such cases and their outcomes, so as to establish the public perception that these companies are responsible for the impact of their products.

This is difficult and long-term work, but it is not without precedent: such litigation was essential in helping to curb tobacco industry abuses. Decades of litigation were key to forcing the tobacco industry into legal settlements and acceptance of new regulations. It is possible that litigation will play a similar role in changing market perceptions and creating for corporations unwanted public exposure on pesticide issues.

## DE-CERTIFICATION CAMPAIGNS

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Like other companies concerned about reputational risks, pesticide firms crave recognition by international bodies. As described earlier, there are a number of conventions and codes that apply to the pesticide industry, including the FAO Code of Conduct and the industry-led Responsible Care program. Pesticide companies also have been actively pursuing partnerships with the World Bank and the United Nations. The participation of agrochemical companies in the UN's Global Compact has been something of a public relations disaster for this global institution. Finally, several pesticide companies have been included in indices such as FTSE4Good and the Dow Jones Sustainability Index that are intended to highlight "best-in-class" companies, or firms with superior environmental management records.

The Pocantico group agreed that efforts to research and document instances of corporate non-compliance with the FAO Code of Conduct and stated guidelines for public/private partnerships, or questionable listings on certain indices purporting to advance particular standards of sustainability, may alter public perceptions of these companies. For example, all companies that are members of CropLife International or its member associations are supposed to be in compliance with the FAO Code of Conduct, but it is not clear

that all of them are. Performing rigorous “audits” that document violations and cases of insufficient or inaccurate reporting and publicizing the results can help investors understand the degree to which companies have made compliance with the Code a routine part of corporate behavior; such audits can also shed light on management’s decision-making procedures. Applying pressure to the UN to end pesticide companies’ participation in the Global Compact and other partnerships would both remove any inappropriate public relations advantage that companies gain from participation and signal that there are well-founded concerns regarding those companies’ performance. The FTSE4Good and Dow Jones Sustainability Index includes companies with “best in class” records; but it excludes companies that deal in what are clearly socially harmful products, such as weapons and tobacco. Some advocates believe there is no place for agrochemical companies in these indices, and attempts to get them de-listed would certainly send a strong message regarding the perceived social utility of pesticides in light of available alternatives.

### SHAREHOLDER ACTIVISM ON OBSOLETE STOCKS

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The sense of the meeting was that the issue of obsolete pesticide stocks lent itself well to engagement by shareholders. Although most SRI funds are not likely to be

invested in pesticide companies, there may be some opportunity to work with the SRI community on this issue. In addition, it may be possible to align with other institutional investors and shareholder activists to work with companies to request data disclosure or company action on the issue of obsolete pesticide stocks. Several participants in the meeting felt that how companies dealt with obsolete stocks was an issue fundamental to the pursuit of social justice, and should be used as a basic litmus test of corporate responsibility.

### WORKER-ORIENTED STRATEGIES

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The Pocantico group did not fully explore the issue of working with organized labor, although participants affirmed the importance of developing worker-oriented strategies. The group noted several different labor constituencies (waged agricultural workers, workers in pesticide production facilities, workers in food/fiber processing and retail sectors) with specific occupational interests in pesticides, and also considered how best to work with labor pension funds. Unions have particular expertise and sophistication regarding these issues. Indeed, some of the strategies described above are already being used by the International Union of Foodworkers, and public interest advocates involved with pesticide issues should improve their understanding of worker concerns and objectives.

# CONCLUSION

The issue of corporate social responsibility has greater salience and attention today than at any point since the 1930s. Participants at the Pocantico conference felt that the time is ripe for improving accountability in the pesticide industry. Participants did not suggest that this meeting would mark the opening of a “new campaign.” On the contrary, the sense of the group was that all the information presented could be incorporated into existing work on sustainable agriculture, corporate responsibility and accountability, and multilateral institutional reform, and that each of these different campaigns should understand and develop initiatives pertaining to the financial risks of continued pesticide use. The gathering at Pocantico provided a clearer sense of how we might “connect the dots” between these different reform efforts.

Two final points should be made. The first is that the tactics discussed here are strategies of engagement. Sustainable agriculture activists have frequently sought direct engagement with pesticide producers and distributors, but for the most part they have been frustrated. As can be seen from the new “sustainable agriculture” program announced by CropLife International, the industry frequently appropriates approaches (e.g., Integrated Pest Management) and manipulates defini-

tions (“sustainable agriculture”) from those advancing a different, more ecologically-based and social-benefit oriented development agenda. The strategies outlined here will increase engagement with additional actors involved with the industry. This broadening of tactical approaches can be expected to create new opportunities and incentives for change within the industry and the multiple arenas that constitute its operating environment.

Finally, this report frequently uses the term “investors.” Who are these investors? One participant summed it up this way: “They are retired teachers, public employees, steelworkers, widows and orphans, colleges, hospitals, and foundations.” In other words, they are all of us. Building a broader engagement to pursue social change necessitates that we all look to our investments. At the very least, we should not be complicit through our portfolios in funding activities that run counter to our beliefs and values. Nor should we ever be placed in the unfortunate position of being duped, watching our investments crash down around us, simply because a company that wasn’t required to disclose certain information didn’t do so. To ensure that our investments uphold our values, we must first seek to obtain the information necessary to make those critical judgments.

## THE ROCKEFELLER BROTHERS FUND AND ITS POCANTICO PROGRAMS

The Rockefeller Brothers Fund was founded in 1940 as a vehicle through which the five sons and daughter of John D. Rockefeller, Jr., could share a source of advice and research on charitable activities and combine some of their philanthropies to better effect. John D. Rockefeller, Jr., made a substantial gift to the Fund in 1951, and in 1960 the Fund received a major bequest from his estate. On July 1, 1999 the Charles E. Culpeper Foundation of Stamford, Connecticut merged with the Fund. The Fund's major objective is to promote the well-being of all people through support of efforts in the United States and abroad that contribute ideas, develop leaders, and encourage institutions in the transition to global interdependence. Its grantmaking aims to counter world trends of resource depletion, conflict, protectionism, and isolation which now threaten to move humankind everywhere further away from cooperation, equitable trade and economic development, stability, and conservation.

The Fund currently makes grants in nine program areas: Sustainable Resource Use, Global Security, the Nonprofit Sector, Education, New York City, South Africa, the Charles E. Culpeper Arts and Culture program, and Health; in 2001, the RBF approved a three-year program in the Balkans as a Special Concern. The RBF periodically reviews its programs and strategies. Please visit the RBF's website ([www.rbf.org](http://www.rbf.org)) for an up-to-date statement of the Fund's mission and grantmaking guidelines.

The Pocantico Conference Center of the Rockefeller Brothers Fund is located in the Pocantico Historic Area, the heart of the Rockefeller Family estate in Westchester County, New York. The Historic Area, which is owned by the National Trust for Historic Preservation and leased by the Fund, includes John D. Rockefeller's home, Kykuit, the surrounding gardens and sculpture collections, and the Coach Barn meeting facility. At Pocantico, the Fund convenes a wide range of meetings and conferences related to its philanthropic programs. In connection with its conference program, the Fund publishes a series of occasional reports, called Pocantico Papers, designed to widen the impact of selected RBF-sponsored meetings at the Conference Center. The Pocantico Programs also include a public visitation program and year-round stewardship of the site.