Environmental Risk

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MARSH

Risk Talk

A REPORT FOR CLIENTS AND COLLEAGUES OF MARSH ON TIMELY RISK-RELATED TOPICS

Emerging Environmental Risk: A Global View

This edition of *Risk Talk* focuses on emerging environmental risks from a global perspective. From local pollution problems to global warming, companies face a wide variety of environmental risks. The increasingly global economy requires that companies adopt a comprehensive environmental risk management strategy. Properly executed, such a strategy can give a company a competitive advantage.

The following is based on a recent panel discussion of emerging environmental risks.

Welcome

Steve Kerr, Marsh's Growth Leader for the Americas

Not a day goes by without environmental issues making the news, from local pollution problems to global warming. Ironically, this is an area that is all too often overlooked. Marsh's experience shows that environmental issues are often intertwined with other risks. It's our belief that organizations, in general, are being forced by regulators, stakeholders, and public pressure to do a better job of incorporating environmental risk management into their overall risk management strategy. This includes taking a second look at what their exposures might be and determining if traditional insurance products provide the needed protection. This not only ensures that corporations are good environmental stewards, but ultimately provides them a significant competitive advantage.

Let me introduce our panel experts.

- **Chris Smy** is global leader of Marsh's Environmental Practice.
- **Lynn Bergeson** is an attorney and the founder and managing director of Bergeson & Campbell, a law firm that specializes in product risk.
- **Matt Elkington** of Marsh's Risk Consulting Practice in London will give us a look at the role that regulations play in environmental risk around the world, with an emphasis on Europe and North America.

"The increasingly global economy requires that companies adopt a comprehensive environmental risk management strategy."

Chris Smy
Managing Director

Chris Smy is a managing director and global leader of Marsh's Environmental Practice.

Mr. Smy is located in Marsh's Atlanta office, where he is responsible for managing the operations of the practice and company relationships with leading environmental insurers, leading geographic teams placing environmental insurance, providing technical support and leadership on complex transactions, and further developing the market for environmental insurance products. In addition, he is responsible for overseeing Marsh's corporate strategy for sales and delivery of environmental products and services to our clients and the training and education of our environmental network.

Mr. Smy holds a BSc. from The Open University in the U.K.; an MSc. from the University of Surrey, Guilford, Surrey, England; and recently completed work on his MBA from the Warwick Business School at The University of Warwick, Coventry, England.

- **Jim Finnamore** head of Marsh's Environmental Practice in Asia, will provide a snapshot of environmental risks that companies may face in Asia, where we know more and more companies are doing business

- **Thierry Brevet** of our sister company Mercer Investment Consulting will talk about the growing concerns of shareholders related to environmental risk.

- **Gary Guzy** leader of Marsh's Emerging Environmental Risk Practice, will talk about climate change, an area in which the global nature of environmental risks really stands out.

An Overview of Environmental Risk

Chris Smy

Steve Kerr (SK): We'll begin today with Chris Smy, the term "environmental risk" covers a wide range of issues. Can you provide us an overview of what we mean by environmental risk from a business perspective?

Chris Smy (CS) Environmental risks vary widely depending on a company's industry, location, customer base, regulatory regime—even its shareholders' expectations. A common thread is that environmental risks are a major consideration for all stakeholders. They involve a host of business situations, management decisions, and other consequences that can have a real impact not only on reputational issues or financial results, but also on a company's competitive advantage and how it will fare in tomorrow's global economy.

As corporations and markets become increasingly global, decision-makers face two key challenges:

- First, they need to understand the environmental exposures that exist as a result of their local operations.

- Second, and not always as obvious, they need to develop a strategic plan for implementing an environmental risk management approach that takes into account the ever-changing nature of environmental exposures. It's important to realize that these exposures can shift due to changes in politics, regulations, product health and safety, and impacts to the environment, such as climate change.

SK: What types of issues should management take into account when developing an overall strategic environmental risk management approach?

CS: One thing is to be aware that regulations at the local level are constantly changing and that the framework for liability is a moving target. There is no case law for many of the regulatory requirements that are currently coming out of the European Union (EU) or other countries; China being a prominent example. How those regulations affect our clients on a cross-border basis is a topic of much discussion and debate. It should, at least, be taken into consideration when developing a strategic environmental risk analysis.

> Environmental risk management is no longer solely the domain of the environmental health and safety department.

Corporations must develop an understanding of how their local efforts to manage risk interplay at the corporate level and whether these efforts are consistent. Complicating matters further are the interests of stakeholders and their increasing willingness to take legal action when something goes amiss or when a product impacts their region of the world adversely.

SK: Aren't these the kinds of exposures usually handled by the company's environmental health and safety department?

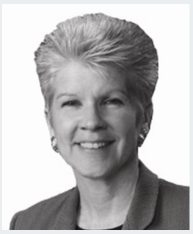
CS: They used to be, but environmental exposures now have such far-reaching consequences in a company that their management involves more of an organization's functions. So many activities that take place in a company— whether it's a local project or one on the other side of the world—have components that could have an environmental risk associated with them. For example, in the United States there are financial reporting requirements that include an environmental component, which is definitely out of the realm of traditional health and safety departments. Leading companies are focusing more and more on applying a holistic approach to managing risk involving multiple functions and consolidating their knowledge and expertise in order to develop focused environmental risk management programs. Many get this expertise from internal and external resources, including their corporate counsel, risk managers, health and safety experts, and accounting departments.

Environmental risk management is no longer solely the domain of the environmental health and safety department. Leading companies take an enterprise risk management approach, utilizing a diverse range of techniques including insurance. Interestingly, there are some very innovative and creative risk transfer tools to help mitigate some of the environmental exposures, yet many companies still leave unprotected this very real risk on their balance sheets. A holistic viewpoint is needed to address all of the environmental concerns that may affect companies, especially if they are doing business on a cross-border basis.

SK: In the United States there have long been political considerations related to the environment. Is there a growing set of political risks globally when it comes to managing environmental risks?

CS: Absolutely. Every country has numerous interest groups that drive decisions around environmental protection. When you start to talk about projects that cross international borders, such as a tunnels or pipelines, the number of interest groups is compounded due to the many issues that need to be resolved around such items as funding, sustainability, environmental impact, and risk mitigation. These issues have to be resolved through every phase of a project, all the way back to funding. For example, many of the world's largest lending institutions are now adhering to a set of global environmental principles—called the Equator Principles—that aim to measure and mitigate environmental and other impacts from major development projects.

Political instability is prevalent in many countries and can make environmental issues a low priority. The consequences of such situations can include not having any environmental information about certain locations or having contamination issues escalate because small problems—minor spills of hazardous material, for example—were not addressed immediately.



Lynn Bergeson
Founder and Managing Director

Lynn L. Bergeson is a founding member and managing director of Bergeson & Campbell, P.C., in Washington, D.C.

Ms. Bergeson has practiced in the areas of chemicals regulation, environmental, and occupational safety and health law since 1980. She represents individual corporations and a wide range of trade associations on chemical-specific legislative, regulatory, and enforcement-related matters. Ms. Bergeson is widely published and lectures frequently on regulatory and policy issues affecting conventional and engineered nanoscale chemical substances under federal, state, and international regulatory programs.

Ms. Bergeson holds a BA in education from Michigan State University, East Lansing, Michigan; and a JD from Catholic University of America, Washington, D.C.

SK: Finally, Chris, what are successful companies actually doing differently as they manage environmental risk**?**

CS: Many successful corporations use their external and internal resources to develop comprehensive environmental risk management plans to help them accomplish their business objectives while at the same time ensuring that they are acting as prudent, responsible environmental stewards. This means they are continuously identifying and analyzing the sources of their environmental exposures and evaluating their risk management, risk control, risk transfer, and risk retention mechanisms. They are not only implementing their findings and recommendations from this analysis, but are also continuously measuring the effectiveness of their plans and programs.

Product Regulation and Environmental Risk

Lynn L. Bergeson

SK: Lynn L. Bergeson is a leading attorney focusing on chemical product approval and defense, and a founder and managing director of the Washington, D.C., law firm Bergeson & Campbell P.C. Lynn, when discussing environmental regulation and liability, the term "product regulation" keeps cropping up. Can you explain what this means?

Lynn L. Bergeson (LB): When we talk about product regulation, we are generally referring to a broad shift in the way environmental regulation is viewed. Traditionally, environmental regulations focused on regulating manufacturing facilities by limiting or preventing environmental releases and related manufacturing activities that were believed to be capable of endangering human health and the environment. Other statutes and regulatory programs generally focused on compelling the cleanup of historic contamination resulting from industrial activities.

But environmental protection today is increasingly expressed in a different way, with more focus on regulating products, not facilities. This is particularly true for consumer products that are believed to be capable of posing environmental harm upon disposal at the end of the products' useful life.

SK: How is this product orientation affecting the way companies operate?

LB: The premise underlying product-specific initiatives is to design a product in a way that precludes it from being the "next asbestos"—to prevent the marketing of products that offer significant commercial value, but that also potentially could give rise to significant harm to health and the environment. Careful product-design measures at the front end of a product's conception and in the manufacturing process can blunt environmental degradation by eliminating potentially harmful components from the manufacturing process and from the manufactured goods themselves. This way the manufacture, distribution, use, and disposal of products do not pose as many of the types of risks as might arise if the products included potentially harmful components regardless of how the products are used, and regardless of the method of disposal at the end of the products' lives.

SK: Are there any industries or sectors that should be particularly aware of this ongoing shift?

LB: Yes. Among the sectors most affected are the consumer products manufacturing sector; the nascent, fast-growing nanotechnology sector; and the chemicals manufacturing sector. Within the consumer products sector, electrical and electronic equipment makers, computer manufacturers, automotive manufacturers, and packaging producers should be particularly mindful of this new focus. Product-specific laws and initiatives and state and local ordinances of all types are increasingly affecting this sector in jurisdictions throughout the world.

Companies engaged in the manufacture of engineered nanoscale materials or products enabled by a nanotech component should also pay close attention. The health and environmental impacts of engineered nanoscale materials are not well defined in many cases. What is defined is that the public generally will steer clear of products that are believed to include components that are thought to be or may be unsafe, either to human health or to the environment.

The chemicals industry needs to pay particular attention to the recently adopted EU regulation known as REACH—the Registration, Evaluation, and Authorization of Chemicals. This will have a major impact on chemical manufacturing, not only in the EU, but around the world.

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SK: Are the environmental issues surrounding product regulations specific only to one geographic region?

LB: Not at all, although the EU is certainly at the forefront. Environmental protection today, particularly in the EU, increasingly focuses on prevention-oriented product regulation, especially of consumer products that when disposed of are believed capable of harming human health or the environment. A number of directives have been enacted that are intended to minimize waste by prompting product-design changes and requiring the reuse and or recycling of those products at the end of their useful life.

In 2000, the EU adopted the precedent-setting End-Of-Life Vehicles (ELV) directive, under which EU member states were directed to develop and implement collection and recycling systems of all ELVs and establish reuse and recycle goals. Product-design standards required under the directive mandated that vehicles marketed after July 1, 2003, not contain lead, mercury, cadmium, or hexavalent chromium.

More recently, the Restrictions of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment directive—better known by its acronym, RoHS—barred manufacturers and importers, after June 30, 2006, from marketing in the EU electrical and electronic equipment containing lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyl, and polybrominated diphenyl ether flame retardants.

SK: Should companies be prepared to see even more of this kind of regulation?

LB: Absolutely. Directives like RoHS are inspiring regulatory authorities globally to ensure environmental sustainability through the redesign of manufactured goods. In the past, the focus on recycling has been toward end-of-product-life issues. Today, the focus increasingly is turning upstream in the product development and production process. Companies, typically manufacturers and retailers, should expect to see both a proliferation of these initiatives as well as greater partnering opportunities with local governments and others in the commercial sector.

A critically important component of the RoHS directive is the development of standard operational practices to limit the use of certain listed hazardous substances. Crafting, implementing, and enforcing these practices will not be easy. Companies also can expect to be challenged by seeking to address the uncertainties associated with RoHS, including the directive's scope, exemptions, various testing protocols available for use to determine if a product is RoHS compliant, and related legal and financial uncertainties.

"Today, the focus increasingly is turning upstream in the product development and production process."

SK: What is happening elsewhere in the world?

LB: While Europe is setting the pace, other countries have been very active, too. Let me give you a few examples.

- The South Korea Ministry of Environment announced in July 2006 that it will start restricting the use of certain metals in product packaging.
- Japan rolled out its own RoHS-like initiative this past July.
- A RoHS-like law became effective in China earlier this year. Similar to the EU's RoHS directive, it places restrictions on six compounds and imposes labeling requirements. The Chinese RoHS is broader in scope, however, and applies to manufacturers, distributors, importers, and retailers.
- Other countries and regions implementing RoHS-like initiatives include Australia, New Zealand, and Latin America.
- In Mexico, regulations are under development that would apply to manufacturers, generators, and importers of "technological waste."
- Some Canadian provinces are considering similar initiatives.

SK: What are the implications for companies, from a strategic standpoint, of this fairly new emphasis on products and the environmental regulation?

LB: The growing body of EU directives and other global initiatives will continue to influence product-manufacturing standards. These initiatives can be expected to heighten consumer insistence upon product take-back and/or end-of-life accountability for a wide range of consumer products. These initiatives are now impacting and will continue to impact the manufacturers of the chemicals that are targeted for restriction, the manufacturers of those consumer products that must meet new product-design standards, and the local municipal and other governance infrastructures that must accommodate the recycle and reuse requirements of these initiatives.

In addition to federal and international initiatives, similar end-of-life requirements are expected to be imposed in the future by state and local government agencies to ensure that electronic and similar high-volume consumer products are recycled and/or reused and thus avoid becoming the next generation's waste problem. In light of all of these developments, manufacturers of a wide range of products are urged to think carefully about these initiatives, identify strategically how these initiatives will affect their operations, and plan accordingly.

Global Environmental Regulations

Matthew Elkington

Matt Elkington
Senior Vice President

Matthew Elkington is a vice president with Marsh's Risk Consulting Practice.

Mr. Elkington is based in Marsh's London office, where he works with clients to develop risk intelligence and solutions across multiple sectors, including electronics, chemicals and life sciences, and power generation. He also leads the global research and development program for the Risk Consulting Practice. His experience includes developing risk management strategies and diagnostics for global supply chains in Asia, providing advisory services and managing carbon risk. Before joining Marsh, he was a research scientist.

Mr. Elkington holds a BSc from the University of Leeds, Leeds, England; and an MPhi from the University of Cambridge, Cambridge, England.

SK: Next we'll talk to Matt Elkington of Marsh's Risk Consulting Practice in London. Matt, Chris initially touched on local regulatory issues and how they could affect companies' environmental risk management on a global scale. Can you give us a general idea of how you see this developing?

Matt Elkington (ME): We are seeing an increasing trend in which environmental regulation that originates in one country or region has direct and indirect impacts on companies located in other countries or regions around the world. In part this stems from the globalization of supply chains and investments. But we also see the replication and adoption of major pieces of environmentally focused law across multiple geographies.

One obvious example of this is the Kyoto Protocol on global warming. Another more recent example is the Waste Electrical and Electronic Equipment (WEEE) directive in the EU. This directive makes the electronics industry financially responsible for its products at the end of the products' life cycles. The directive has an immediate impact on any firm that sells electronics in the EU—and there are 25 different versions of this directive for companies to contend with, as each member state has some freedom in how it actually interprets and implements the law in its own country.

China, Japan, Canada, and some U.S. states are looking to enact similar versions of this legislation; and each version will have its own unique twists. This creates huge compliance challenges and resource constraints for firms operating in multiple jurisdictions to ensure that they comply with each territory's version of the law.

Underlying this is another absolutely critical point—it's not just electronics manufacturers and retailers that are affected by WEEE. Any business can have environmental management responsibilities under this directive if it has not contractually shifted its liability to its suppliers. This is a key point to bear in mind when looking at environmental risk in that what may appear to be sector-specific legislation may actually impact multiple stakeholders within a supply chain.

> “What may appear to be sector-specific legislation may actually impact multiple stakeholders within a supply chain.”

SK: Could you give us an example of other key emerging areas in environment regulation?

ME: Arguably the most significant environmental issue in Europe right now is the EU’s new chemical regulatory framework, known by the acronym REACH, which stands for the Registration, Evaluation, and Authorization of Chemicals. It replaces more than 40 existing directives and will require approximately 30,000 chemical substances to be tested for safety and toxicity. Some of these chemicals will ultimately be restricted from use or will be allowed to be used only under very specific circumstances as a result of the information that will be liberated from the REACH testing process.

Regardless of whether other countries copy this law, it will cost the EU chemicals industry billions of euros to comply. REACH will have knock-on effects for nearly all downstream users of chemicals wherever they are located. For example, imagine that Substance X is banned from use in the EU under REACH for being unacceptably hazardous. Companies around the world could then decide to stop using Substance X, as the potential litigation arising from its continued use could be significant. Additionally, the continued use of a substance identified as too hazardous under REACH could have disastrous consequences for a company’s reputation if its products are perceived to be unsafe by consumers. Companies located outside the EU that export into the region will also be required under certain circumstances to register the substances their products contain, or the importer will need to take on this responsibility.

So REACH, then, will have a wide and complex range of risk implications, including on product liability and recall, intellectual property, and duty of care within the supply chain. Marsh has produced a paper summarizing these risk implications to help clients better understand their potential exposures. To receive a copy, send an e-mail to questions@marsh.com.

SK: What other new regulations are being developed?

ME: In the EU, the new environmental liability directive that goes live in April this year is certainly worth mentioning. This directive increases the liability exposure of firms that cause environmental pollution in terms of the likelihood of action being brought against them for breach of the law and the size of cleanup costs involved. It also expands the scope of liability to include natural-resource damage. There has been some debate with regard to whether or not insurance policies will respond to this risk. Marsh has participated in meetings in which the primary environmental insurers have confirmed that they are providing coverage for this exposure and will continue to provide coverage for this exposure after the directive is implemented.

Another issue is the increasing enforcement we are seeing in environmental legislation in China and other major developing nations, which often involve key supply chain dependencies for many global firms. The Chinese government recognizes the huge challenges it faces from environmental pollution and has enacted standards to better protect the environment, although enforcement capacity and successful enforcement have been very limited to date. This is starting to

Jim Finnamore
Senior Vice President

Jim Finnamore is a senior vice president with Marsh's Environmental Practice and head of its Asia-Pacific operations.

Mr. Finnamore is located in Marsh's Singapore office, where his responsibilities include managing and growing the Environmental Practice in Asia, developing local environmental insurance markets, broking services on major accounts, designing new products, advising on claims, and providing environmental risk management advice. He has extensive experience writing environmental liability products worldwide, having helped set up and manage environmental insurance underwriting operations for Chubb Insurance Company and Quanta. He has a technical background in environmental engineering, science, and quantitative risk analysis and is the author of several environmental and insurance publications.

Mr. Finnamore holds an MSc in Environmental Technology and a BSc from Imperial College, London.

change, however, driven partly by the forthcoming Olympics as well as by a general increased awareness by a variety of stakeholders within China who recognize the consequences of not acting now. I believe it would be prudent for all firms with operations in China to ensure that they comply by the book and don't risk being made an example of by the authorities.

SK: What are some hot-button issues for the United States regarding environmental regulations?

ME: We are constantly reviewing case law in the United States, which is one of the factors that determines what is a hot button or not. In addition to changes in case law, two issues come to mind:

- First is that the Environmental Protection Agency has made it a priority to scrutinize insurance policies that were put in place to meet financial responsibility requirements for hazardous waste treatment, storage, and exposure facilities. We are closely monitoring this process for our clients.
- Second is an issue that affects entities that store petroleum products to which ethanol-85 has been added. There's been some controversy with regard to financial assurance requirements for these entities, but the most critical issue involves corrosivity. This stems from the fact that ethanol petroleum blends may cause extreme and rapid corrosion of storage tanks and may "melt" soft metals. This has led some storage tank insurers to place restrictions on these types of vessels.

SK: Any final thoughts?

ME: I would like to reiterate what Chris and others have said about the need for companies to think strategically about their environmental risks. The regulatory issues are just one part of a moving target that has to be considered in an organization's holistic environmental risk management approach.

Managing Environmental Risks in Asia

Jim Finnamore

SK: Now, let's turn to Jim Finnamore, who heads up Marsh's Environmental Practice in Asia. Jim, how are regulatory developments in Europe and North America affecting companies in Asia?

Jim Finnamore (JF): Increased globalization means that companies in Asia are beginning to feel the full force of foreign regulations. Obviously, those companies with operating subsidiaries in North America and Europe feel the effects directly. And those that list their securities on foreign exchanges face environmental disclosure and financial reporting requirements. But even domestic Asian firms with no overseas operations are being affected.

A case in point is the European WEEE directive mentioned earlier. The directive has far-reaching impacts—to the extent that certain Asian companies that export electrical goods to Europe face the threat of their goods being rejected if they don't comply with the requirements. And new environmental laws in North America

> “New environmental laws in North America and Europe have their equivalents in Asia.”

and Europe have their equivalents in Asia. A good example is the Restriction of Hazardous Substances legislation in China, which in many ways mirrors the European RoHS directive.

But it's not just legislation that's affecting businesses in Asia. Global operating principles such as the Equator Principles are as relevant to Asian projects and businesses as they are to non-Asian ones. We're seeing foreign multinational customers imposing their own environmental management standards on the domestic Asian supply chain. Those suppliers that don't meet the standards simply don't get the business.

SK: Can you tell us more about local environmental laws and their impacts?

JF: Surprisingly, local environmental laws are very comprehensive in most cases. For example, China has enacted environmental laws that resemble the landmark legislation from the United States and Europe in the 1970s. China's State Environmental Protection Administration reports that spending for environmental projects is increasing about 15 percent per year. China has begun to emulate the U.S. Environmental Impact Review process for major construction projects.

Enforcement, on the other hand, is a different story. While the legal instruments may be in place, the reality is the regulators just haven't been using them. However, this is beginning to change. There are many recent examples of unexpected increases in regulatory activity across the region. This has created massive uncertainty and is a source of much concern for companies operating here. The increase has been most pronounced in China, where the government recently blacklisted 33 multinational companies for allegedly causing water pollution. The Chinese government also has drawn up a list of a further 2,700 polluters to be investigated.

SK: What is really driving these changes?

JF: There are a number of factors driving these changes. First has been a series of high-profile incidents that have pushed pollution up the political agenda. One of the worst incidents involved a major chemical spill at a factory in China. This incident not only generated international publicity, but also had political ramifications because the pollution affected neighboring Russia. When you look back at some of the landmark legislation in North America and Europe, you can trace it back to similar incidents, such as pollution at Love Canal and at Seveso. We are seeing the same thing happening in Asia.

Another force behind the changes is recognition that economic growth cannot carry on at the expense of the environment. There needs to be a balance. In April last year, the Chinese premier announced three new policy directions:

- integrating environmental protection and economic decision-making on an equal footing;
- decoupling pollution emissions from economic growth; and
- applying a mix of instruments to resolve environmental problems.

What does this mean in practice? We have seen a large number of new projects rejected on environmental grounds. Plus, regulators have shut down a dozen industrial plants that failed to meet pollution standards and have told another 70 to comply with them. The vice minister of SEPA (State Environmental Protection Agency), Pan Yue, was recently quoted as saying, “Projects that seriously violate the State’s industrial policies must be immediately and permanently closed down.”

SK: Jim, you have told us how North American, European, and Asian regulatory developments are affecting companies operating in Asia, but what about the impact that regulations in Asia have on the operations and strategy of companies based elsewhere?

JF: The impacts are wide-reaching and substantial. For multinational companies, there is always the growing threat that their Asian subsidiaries will be targeted in a number of ways, including “naming and shaming,” prosecution, fines, cleanup costs, or enforced closure of a facility. There also are less obvious but equally damaging effects. Many multinational companies rely on Asian suppliers to provide raw materials, goods, and services. Anything that affects the supply chain can have a damaging knock-on effect on customers.

> “Anything that affects the supply chain can have a damaging knock-on effect on customers.”

Chris mentioned earlier the need to understand environmental exposures at a local operational level and to develop a strategic plan for implementing environmental risk management. I’ve got an example that provides a graphic illustration of such a need. It centers on the tin industry.

The price of tin recently reached prices on the London Metal Exchange not seen for 20-odd years. There are two reasons for this, both of which have an environmental component:

- First, demand for tin has increased because, among other things, legislation restricting the use of hazardous substances has meant that tin, rather than lead, is now being used in solder.
- Second, the world’s biggest exporter of tin is Indonesia, whose government recently introduced harsh new measures to raise standards in its tin-mining industry. These measures include a requirement for mining companies to demonstrate that they are effectively managing their environmental impacts. Probably only two of the country’s 39 operators are going to be able to comply immediately, with maybe a dozen or so more being ready in a few months. As a result Indonesian’s tin production is expected to fall by one-third this year, strangling supply on a global basis and leaving many companies with a major headache in finding new supplies of tin.

SK: How are companies managing their environmental risks in Asia?

JF: It varies massively and depends on the type of exposure. At one end of the spectrum, you still see companies ignoring the issue completely. Conversely, many firms are embracing environmental risk management, recognizing that compliance with local laws is just the start of the process. Some have implemented an environmental management system accredited to international standards. More than 8,000 companies have such a system in China, for example. An increasing number are also buying environmental insurance products to complement their technical

Theirry Brevet
European Partner

Thierry Brevet is a European Partner with Mercer Investment Consulting.

Mr. Brevet is located in Mercer's Paris office, where he is the head of country for Mercer Investment Consulting's operations in France. He advises multinational corporations, financial institutions, and public entities on all aspects of risk budgeting, investment strategy, and manager selection. He has more than 20 years of experience in finance and insurance.

Mr. Brevet holds an MBA from Ecole Supérieure de Commerce de Lyon, France.

risk controls and fill in the pollution coverage gaps under their liability and property programs. Some companies are also actively managing their supply chain risks, through careful selection of suppliers, setting environmental performance standards, and auditing their suppliers against them.

For mergers and acquisitions, it is standard practice of corporate and private equity firms investing in the region to undertake environmental due diligence. It is also becoming increasingly common for environmental insurance to feature in the transactions. And a specialist environmental insurance sector has responded positively to the increased demand for operational and transactional pollution policies by developing local policy wording and growing capabilities in Asia. They are slowly being joined by local Asian insurers who also are bringing out environmental risk transfer products.

Responsible Investment and Environmental Risks

Thierry Brevet

SK: Next up is Thierry Brevet, a European partner with Marsh's sister company, Mercer Investment Consulting. Theirry, are investors taking environmental issues into account when they assess whether to invest in—or continue investing in—a company these days?

Thierry Brevet (TB): Environmental issues are part of what investors call "responsible investment," which we believe to be a major trend in many regions of the world. Responsible investment involves the integration of environmental, social, and corporate governance (ESG) considerations into the investment management process in the belief that these factors can have a significant impact on financial performance. More and more foundations, corporate pension funds, and state funds set responsible investment policies for managing their assets.

In theory, responsible investing is a way to reduce the downside risk. Some even say that superior ESG performance is a possible source of additional return against the market for responsible investors because the analysis of ESG factors, which is not yet widespread, may give them an opportunity to outperform traditional investors who lack it.

SK: What are the other drivers for responsible investment?

TB: Regulation has been a very strong driver in favor of responsible investment. Several European countries— including Belgium, France, Germany, Italy, Sweden, and the United Kingdom—have now passed legislation requiring pension funds to state the extent to which social, environmental, and ethical issues are taken into account in their investment policies. Disclosure statements have tended to be brief, with little detail on implementation, monitoring, and reporting. Clearly, this situation is changing as good practice is evolving.

The Principles for Responsible Investment, which was launched in April 2006 by the United Nations, also provides a framework for investors wanting to incorporate ESG factors into mainstream investment decision-making and ownership practices. This initiative has now been signed by 41 owners—with assets in excess $2 trillion—and 38 asset managers—with assets in excess $28 trillion—a large portion of which are based in Europe. At Mercer, we expect a sharp increase in the next three to five years in the use of social and environmental corporate performance indicators by investors.

SK: In practice, just how does responsible investment concern on the part of the investors manifest itself?

TB: Investors show their concerns in a number of ways. As a first step, investors usually ask their asset managers how they take ESG considerations into account in the investment process. We see increasing concern about environmental issues on the part of investors. For example, a Mercer IC survey of 183 U.S.-based institutional investors found that 74 percent of them ranked environmental management as "very important" or "somewhat important."

Investors can also seek to evaluate how their existing portfolios compared to ESG benchmarks or peer groups. Once this is done, they can set responsible investment guidelines. Very often, these guidelines lead their managers to overweight holdings in companies that demonstrate responsible leadership, and to underweight companies showing evidence of environmentally and socially irresponsible practice. Active ownership, direct engagement, and collaborative initiatives also are being implemented more often by responsible investors worldwide.

> "We expect a sharp increase in the next three to five years in the use of social and environmental corporate performance indicators by investors."

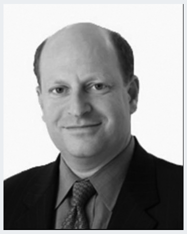
SK: Are some investors pushing companies through lawsuits, the threat of lawsuits, or through the proxy system?

TB: Well, more and more investors enter into what we designate as "engagement." This engagement attitude ranges from talking to the management of corporations about pending or potential environmental issues to joining shareholder coalitions to putting pressure on corporations about their ESG policies. Of course, it also includes voting against, directly or through a proxy system, some proposals made by the company that the investors believe don't meet ESG criteria or their responsible investment policy guidelines.

SK: What do you see as the biggest environmental concern for investors today?

TB: Climate change is probably one of the most important issues. Climate change is already influencing the global business environment. It will bring about new threats for some companies, new regulatory requirements, physical impacts, litigation, loss of competitiveness, and damaged reputations. On the other hand, it will bring new opportunities such as new industries, new products, and, for some companies, a chance to boost brand image.

Fund managers are now starting to incorporate climate change analysis into their investment process. They undertake research, conduct scenario and portfolio reviews, hire specialists, discuss issues with corporations, and buy stakes in clean technology companies. At Mercer, we can now assess and compare the carbon exposure of a portfolio of stocks. This is a fun but very serious way of showing that this is an element of the portfolio that can be measured alongside the traditional financial indicators that investors use, such as price-earning ratio or the book-to-price ratio.



Gary Guzy
Senior Vice President

Gary Guzy is a senior vice president and leader of Marsh's Emerging Environmental Risk Practice.

Mr. Guzy is located in Marsh's Washington, D.C., office, where he is responsible for developing new solutions for clients in responding to emerging environmental risks and trends and spearheading Marsh's and MMC's global efforts in the climate change arena. This includes serving as Marsh's chief strategist on sustainability issues and its spokesperson to the media and at conferences on sustainability issues. Before joining Marsh, Mr. Guzy served as general counsel of the U.S. Environmental Protection Agency (EPA) from 1998 to 2001 under President Clinton.

He holds a JD from Cornell Law School, Ithaca, New York; and a BA from Cornell University.

Climate Change Risks

Gary Guzy

SK: Finally today we'll talk about global warming—climate change—with Gary Guzy, leader of Marsh's Emerging Environmental Risk Practice. Gary, a lot has happened in Washington regarding climate change over the past decade. What do companies need to be doing now to prepare for climate-change-related risks?

Gary Guzy (GG): Sometimes it seems challenging to keep up with the changes in just the last ten days, not to mention over the last decade. The pace of climate-related developments has been staggering. And there are a few things that companies need to be doing as this area continues to develop, starting with analysis and disclosure. Institutional investors and even mainstream financial houses increasingly are demanding that companies demonstrate their preparedness for climate risk. For example, the Carbon Disclosure Project is a group of institutional investors who seek public disclosure of corporate greenhouse gas emissions. This group is now in its fifth year and says it's comprised of investors representing $41 trillion in assets under management—hardly a niche group. And the business world recently saw a major financial institution play a role in instilling climate considerations into a record-setting leveraged buyout for a major power company.

Investors, too, are heightening their demands. At the recent World Economic Forum in Davos, a group of key investors embraced the new, far more robust global-climate risk-reporting framework, which was explicitly patterned on the Financial Accounting Standards Board. Marsh is poised to help companies understand this new framework, which requires that public companies report not only on their emissions, but also on the physical risk to facilities and operations posed by climate change from things like storms, wildfires, and sea-level rise. They would also have to report on the likely compliance costs imposed by carbon-control regulatory regimes, on the strategic implications for their growth and business models that these challenges impose, as well as on the management structures they have devised to address these concerns.

SK: How does the political environment in Washington, D.C., and elsewhere affect what companies need to be thinking about in terms of analyzing their climate risk?

GG: All of this analysis has to occur in the face of a rapidly changing regulatory landscape. In the United States, more and more states are adopting regulations to limit greenhouse gas emissions, and the pace of Congressional hearings on climate change has increased to several per week. Many industry-leading corporations have come out in support of federal greenhouse gas emissions controls, saying they favor the predictability it would create. Every sign is pointing to the likelihood of such a scheme, with the open questions being when would it be enacted and what kinds of winners or losers will it create.

> “Many industry-leading corporations have come out in support of federal greenhouse gas emissions controls.”

These developments—combined with the international scientific bodies now saying that the science around human impacts on the climate is “unequivocal”—have upped the ante on company performance in response to climate risk. One of the most significant concerns is that investors will turn to the courts to challenge the adequacy of the disclosure of investment-relevant information related to these climate risks.

Finally, the number of general court cases in the United States around climate change is ramping up. Just this spring, the U.S. Supreme Court ruled in favor of plaintiffs that were challenging the EPA’s decision not to regulate automotive carbon emissions as pollution under the Federal Clean Air Act. The ramifications of this decision remain to be seen, but could be significant. The bottom line is that proactive analysis, planning, and disclosure are more critical than ever.

SK: What do you see happening on the insurance front in this area?

GG: I believe that what’s happening on the insurance front feeds these trends. Ever since Hurricane Katrina in 2005 and the increasing pressure on homeowners coverage in coastal areas, the National Association of Insurance Commissioners has been actively considering to ask insurers to provide details about the potential impacts of climate-related losses on their financial positions as part of their annual information filings. That would include impacts on the availability and affordability of insurance. This kind of a requirement could trickle down to far more active inquiries by insurers about companies’ carbon-management approaches, including in the directors and officers liability area.

SK: One of the most intriguing areas in climate risk management involves the trading of carbon emissions credits. Could you briefly explain what this is?

GG: I’m pleased that you brought this up because I do not want to leave the impression that climate change presents just an inescapable morass for companies. There is a world of opportunity being created by the transformation to a low-carbon economy, and many companies are staking out successful and significant new business models based upon this.

Carbon trading is one of the leading techniques for complying with regulatory requirements to reduce greenhouse gas emissions. It is allowed under the Kyoto Protocol and is built into the European Union’s Emissions Trading Schemes, which took effect two years ago. The basic idea is that it does not matter to the environment which company or country emissions reductions come from, so long as they occur. Because it may be less costly for one business to achieve emissions reductions than it is for another, if that company generates more than it needs itself and can sell its excess emissions reductions, it should lower everyone’s costs of compliance. Moreover, this provides an incentive for everyone to find ways to reduce their emissions—either to come into compliance or to benefit from selling those reductions.

The Kyoto Protocol also allows these projects to occur in developing countries without their own emissions-reduction targets—hopefully leading to the transfer of advanced technologies to developing countries as well. The end result has been a maturing carbon-trading market that last year registered over $25 billion in trades.

Abbreviations and Acronyms in This Issue

- ESG: Environmental, Social and Corporate Governance
- REACH: Registration Evaluation and Authorization of Chemicals
- RoHS: Restrictions of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Directive
- ELV: End-of-Life Vehicles
- WEEE: Waste Electrical and Electronic Equipment Directive

SK: I imagine carbon trading itself is not risk-free.

GG: These arrangements carry with them a whole new set of risks that companies need to be actively managing. Many of these projects involve new technologies. They may involve startup companies. They may have unique political risks. They may involve pricing challenges. And they may even pose regulatory risks resulting from the unique Kyoto Protocol approval process. In short, we have been examining these issues from the perspective of buyers, project developers, technology providers, and large emissions-reduction funds to conduct due diligence around these projects and develop appropriate risk management and insurance approaches. The insurance markets are maturing in the area of credit-delivery guarantees; this area holds tremendous promise.

One other caution worth mentioning is that as global warming increasingly resonates at the consumer level, many companies are intrigued by the idea of voluntarily offsetting their greenhouse gas footprint and becoming, in the latest lingo, "climate neutral." While this can be a very positive development, it has to be approached with care to ensure the offsets are real and appropriate and the company is not seen as simply "buying" its way out of its emission problems.

SK: One final question. Do you think businesses, in general, are as prepared for climate change risk as they ought to be?

GG: I believe the days are over when businesses could afford to sit back and see how the climate change debate played out. The risks are too great and the opportunities are too significant at this point for companies not to be proactively engaged in carefully managing these issues.

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