adaptation

Experts urge in-house lawyers to understand the ramifications of new developments in environmental law

With the current global economic outlook, climate change issues may be taking a back seat to fiscal woes, but corporate counsel will want to stay on top of the issue given recent developments in the area of environmental adaptation. A recent report from the National Round Table on the Environment and the Economy suggests the cost of climate change could top the \$5-billion mark in Canada in less than eight years, and rise to between \$21 billion and \$42 billion by the 2050s.

The NRTEE suggests the magnitude of the costs depends on a combination of two factors: global emissions growth and Canada's economic and population growth. The report addresses what those costs could be and underscores the fact that while there is an environmental cost to climate change, there is also an economic cost: a cost of climate impacts occurring and a cost of adapting to protect against those impacts.

Since climate change impacts manifest in different ways in different regions and sectors of Canada, NRTEE conducted specific "bottom-up" studies to assess the costs of climate change on three representative aspects of Canada: its prosperity (timber supply), places (coastal areas), and people (human health). "By the 2050s, the impacts of climate change on the timber supply through changes in pests, fires, and forest growth are expected to cost the Canadian economy between \$2 billion and \$17 billion a year," states the NRTEE report entitled, "Paying the Price: The Economic Impacts of Climate Change for Canada."

The report also points out that the coastal land area exposed to climatechange induced flooding from rising sea levels and increased storm activity across the country is roughly equivalent to the size of the Greater Toronto Area. Climate change, it adds, will lead to warmer summers and poorer air quality, resulting in increased death and illnesses in the four cities studied in the report: Montreal, Toronto, Calgary, and Vancouver. In Toronto alone, the report suggests the cost to the health care system for climate change-related illness could top the \$11 million a year mark by the 2050s.

Adaptation is a concept that's still gathering momentum and hasn't broken through the public consciousness yet, says Chris Tollefson, a professor of environmental law and sustainability at the University of Victoria in British Columbia, but the academic community is squarely focused on the issue. "We have scientists, both hard scientists and social scientists, looking at how we manage the timber supply, the species of plants we grow, the measures that need to be taken to protect communities from forest fires, and how we maintain healthy economies," he says, pointing out there can be significant returns on investments made in adaptation initiatives. "There are things that can

be done around adaptation that can support mitigation and achieve a good bang for the buck. In the mitigation debate, people wonder if the bang for the buck is worth it."

Donna Shier has witnessed a lot of change in environmental law over the last 30 years. When Shier began her Toronto practice, Willms & Shier Environmental Lawyers LLP in 1978, environmental mishaps where the lawyers were called in were referred to as "toxic torts."

"It was barely a discipline," she says. "From there we moved to environmental, management problems, and there was a lot of it in the late 1970s and early '80s: midnight dumping, buried oil drums; that was the heyday of that sort of thing."

Since then, Shier insists, there has been much consciousness raising and companies have followed suit, incorporating sound environmental practices into their overall business operations. "A dozen years ago, I would have said environmental management is not like heat, lights,

and taxes, but today I would say waste disposal and property waste management are right next to the heat, lights, and taxes" on the financial balance sheet.

A recent report from the Conference Board of Canada emphasizes the obligations of the private sector in responding to climate change by developing strategies that promote resilience and adaptation. The August 2011 report "Beyond Sandbagging: Building Community Resilience to the Impacts of Climate Change," states that "given the importance of critical infrastructure to mitigating and recovering from a climate-induced threat, owners and operators have an important role to play."

Serving up protection

To date, much of the work in climate change has been focused on mitigation efforts that aim to reduce carbon emissions on a global scale, but for a variety of reasons, these efforts have realized only moderate success. Add to the equation

Framing the adaptation discussion

nvironment Canada has outlined a five-step framework that aims to promote development of adaptation responses with mitigation co-benefits tailored to local long-term priorities. Environment Canada suggests starting with the selection of the focus of the sustainable adaptation and mitigation project and ending with a strategy to implement the actions and define potential follow-up activities:

STEP 1: Identify the focus and objectives of a sustainable adaptation and mitigation initiative.

STEP 2: Assess present status and trends. Where are we heading now? a. Examine current development challenges, planning principles, and capacities.

b. Estimate impacts of climate change.

STEP 3: Develop a vision of the future. Where do we want to be in the coming decades? a. Identify future development priorities based on the principles of local sustainability and community planning.

b. Assess impacts of climate change and the potential for adaptation and mitigation within community goals.

STEP 4: Set trajectories to meet priorities. How can we get there? a. Identify actions to achieve the vision of the future.

b. Develop capacities and institutional linkages to support implementation.

STEP 5: Monitor, reassess, and adjust. Re-examine the identified actions in a project or address new challenges.



a lack of global consensus on targets for reducing emissions — and a precarious global economy — and the results are predictable.

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"We've seen in the last five years a situation where climate change has been relatively high profile in the media and it's still not enough to drive public policy," says Douglas Clarke, a partner with Gowling Lafleur Henderson LLP in Montreal. "In many areas of the world such as Asia and India, there is tremendous economic growth with little greenhouse gas mitigation measures in place. When I look at it, I think if the most educated, sophisticated, knowledgeable people on this topic can't change their conduct, how do we expect anyone else to?"

Many experts suggest mitigation efforts alone will not be a sufficient response to climate change. They argue that even if emissions growth could be brought to a grinding halt today, it would do nothing to stem the impact of greenhouse gases already in the atmosphere. Rather, businesses and communities will need to take steps to adapt to the changes in climate affecting them.

The idea of adapting to climate change has been around for a long time and is something that doesn't replace mitigation efforts, but rather, works in tandem with them, says Jennifer Cleall, a partner with Davis LLP in Edmonton. "We should continue our efforts in the area of mitigation and we should reduce our emissions in an effort to slow down climate change, but we have to recognize it's happening, and we have to ask, 'what will you do to make yourself less vulnerable," says Cleall.

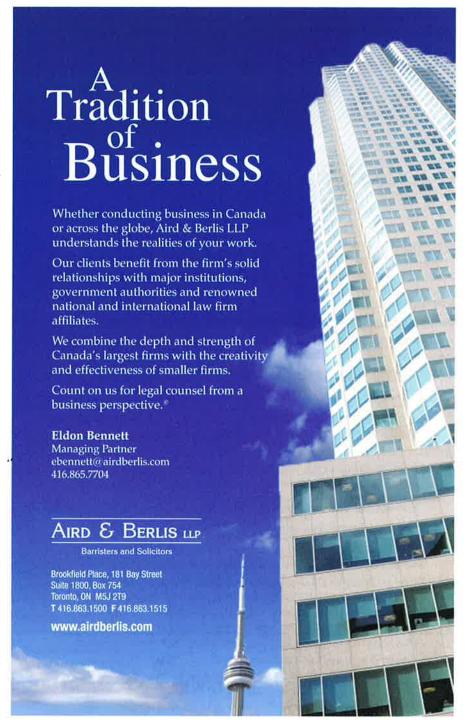
The whole idea of adaptation is that it's complementary to the mitigation objective, says Alex MacWilliam, of Fraser Milner Casgrain LLP's Calgary office, whose practice is almost exclusively devoted to environmental matters. "There are those who would argue that increasing the focus on adaptation is not the way to go, but I don't agree with that," he says. "I don't think we'll be able to effectively mitigate all the man-made impacts to the environment caused by emissions, so how do we adapt going forward?"

Calling on in-house counsel

If internal corporate lawyers haven't come face-to-face with the legal ramifications of environmental adaptation, they need to prepare themselves. "For corporate counsel, there are issues they need to be aware of," says Cleall. "They need to understand how climate change is impacting their organization, and they need to identify

what the risks and opportunities of adapting to those changes are."

Companies that manufacture energyefficient appliances, she says, are an example of an adaptive response to climate change. Front-load washing machines, for example, use 50-per-cent less water than traditional top-load machines. "That's adaptation, and for companies



Pilot project to study adaptive responses to climate change in Alberta

f the average temperature in Alberta rises the four or five degrees climate scientists are projecting by 2100, what will the impact of that increase be on the province's businesses and communities?

That's the kind of question Kirk Andries asks himself on a daily basis, as the managing director of Alberta's Climate Change and Emissions Management Corp., a non-profit organization with a mandate to expand climate change knowledge and develop and implement new "clean" technologies.

Until now, the CCEMC has worked primarily on projects that reduce greenhouse gas emissions, but this year, the organization will fund four major projects in the area of adaptation. They have solicited proposals for projects that address specific areas of natural resources affected by climate change: agriculture, forestry, water, and ecology.

"Adaptation is accepting the notion that things are going to change, and if we model and forecast those changes into the future, what will our living environment look like?" says Andries.

"When we talk about changes in water, what is significantly different will be the frequency and severity of droughts and flooding and the timing of moisture arriving in our system," he explains. "In the future the prediction is that (precipitation) will come at different times than it does today."

One of the projects the CCEMC will present to its board of directors in December is in the area of forestry, looking at the blending of the impacts of climate change and the effects of ecology at different locations in Alberta.

"It's about seeds and seed sources and looking into different species of trees that can survive and thrive in a climate where the average temperature is four to five degrees higher than normal," he explains.

He points out that the driver for the forestry industry in the past was productivity — extracting the highest volume of fibre from the trees — but that's changing.

"Now, they're shifting their interest from not just a volume perspective, but rather a perspective of these trees' ability to adapt to climate change," he says.

CCEMC will allocate about \$7 million of its \$70- to \$90-million annual operating budget to the four adaptation projects in 2012. The additional \$15 million required to fully fund the projects will come from industry, the federal government, and other pots of provincial funding.

that are able to successfully adapt to changes in the environment, they'll see tangible returns on their investments."

Cleall advises in-house counsel to study the issue and identify the risks and opportunities for their organizations now. "Ensure there are policies and measures in place to deal with it, and put those into your planning process so when the climate change impacts become bigger, they won't seem insurmountable."

Meanwhile, MacWilliam points out that adaptation initiatives fall under the domain of an organization's overall risk management strategy, and this issue could provide in-house lawyers with an opportunity to lead the charge. "Over the years, I've noticed that sophisticated companies are involving in-house counsel more and more in policy discussions," he says. "There was a time when in-house counsel got involved strictly on an operational basis, but more and more they're involved at the policy level and quite often involved with discussions their companies are having with industry associations or governments."

Cross-border implications

While many businesses are starting to recognize the need to deal with adaptation issues, only a few truly understand all the risks and opportunities it represents," says Radha Curpen, a Toronto partner with Bennett Jones LLP. Curpen's firm works with clients who have both Canadian and U.S. operations, many of which are publicly traded. Bennett Jones, she says, is seeing a lot of client activity in the area of disclosure.

For public companies, investors are increasingly interested in how companies are managing their risk," says Curpen. "They are seeking disclosure on the adaptation front on both sides of the border. If you're a mining company, you need to look at the impacts of physical climate changes on water resources, for example."

There are continuous disclosure obligations for the environment, both in the annual information forms that are filed and in the management discussions and analysis, Curpen adds. She points to two cases that have set the stage for environmental considerations having a more critical profile in a company's public reporting process. The Supreme Court of Canada's 2004 decision in *Peoples Department Stores Inc. v. Wise*, ruled that "it may be legitimate . . . to consider . . . the interests of shareholders, employees, suppliers, creditors, consumers and the environment. The 2008 Supreme Court decision *BCE Inc. v. 1976 Debentureholders* stated: "directors acting in the best interests of the corporation may be obligated to consider the impact of their decisions on corporate stakeholders. This is what we mean when we speak of a director being required to act in the best interests of the corporation viewed as a good corporate citizen."

For in-house counsel, Curpen recommends a thorough assessment of their current governance system to begin with. Both the Securities Exchange Commission in the U.S. and its Canadian counterparts have clearly stated that boilerplate disclosure is not sufficient. "Companies need to specifically report how their operations could be impacted if they are material," Curpen says. In-house lawyers, she adds, are often the first line of defence in identifying, assessing, and managing those risks. "Some companies may have cost projections in the event of climate risk," Curpen explains. "Start with your existing processes and you may need to build on those. There may be opportunities in terms of market needs. There may be other stakeholders in the company who have taken a leadership position with respect to climate change. Start engaging those partners in the discussion."