

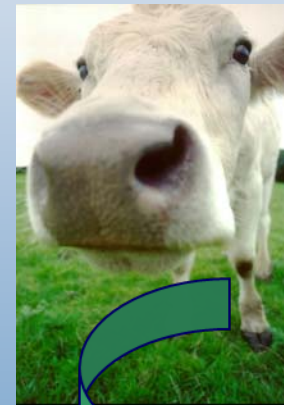


Climate Risk and Opportunity: An Insurer's Perspective



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Climate Products



International Association for
Impact Assessment
15 November 2010



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Insuring “Against” Climate Change ?



- Or is it really using the insurance instrument to facilitate adaptation and mitigation ???????????
- What does the lexicon suggest / imply ?

Challenges facing development of carbon market



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- Atmospheric GHG emissions remain largely an economic externality (cap & trade not enough)
- Adaptation and Mitigation to reduce risks affects all major components of developed & emerging economies
 - Power
 - Water
 - Transportation; and
 - Land Use
- Governance gap and conflict of laws – discourages action
 - Fossil fuel paradigm frames all current economies
 - Consumer protection legislation prohibits incorporation of costs for externalities unless mandated
 - Current laws do not address ‘rights’ of interest in a low carbon economy
 - Judicially made law and administrative action ‘fill the gaps’ where government leadership fails to act – creating inconsistency / unpredictability
- Low Carbon Economics – No clear demand / price signals
 - Only subset of activities are cash positive; all others cost money
 - Fear of taking action; might lose economic lead

Carbon Regulation Today: Reality



Mixed Public Policy Solutions:

- cap and trade; and
- all other incentives to achieve mitigation of and adaptation to climate change



Other incentives accompany cap and trade

Goal: achieve other public policy objectives, such as:

- Energy security
- Specific technology development / promotion
- Redistribution of “burden” and “benefit” of specific actions



Distorted marketplace presents



Risk profiles impacted by carbon credits, allowances and caps (political and economic risk)

Pressure Points ...



The Ripple Effect: Water Risk in the Municipal Debt Market
The Ripple Effect: Water Risk in the Municipal Debt Market
Ceres October 2010



Growth of U.S. Climate Change Litigation: Trends & Consequences

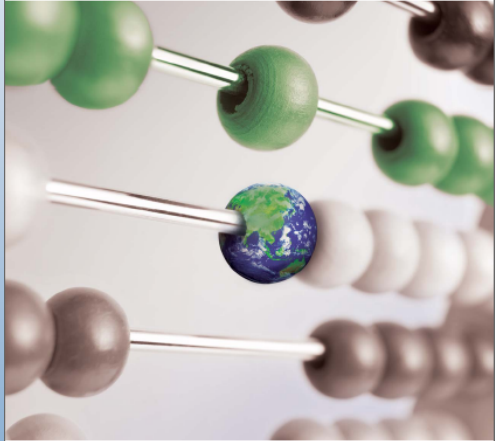
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DBCCA research available online:
<http://www.dbcca.com/research>

Universal Ownership
Why environmental externalities matter to Institutional Investors



 **UNEP Finance Initiative**
Innovative financing for sustainability

 **PRI**

The PRI is an investor initiative in partnership with UNEP Finance Initiative and the UN Global Compact

Courts as Battlefields in Climate Fights

By JOHN SCHWARTZ
Published: January 26, 2010



Tiny Kivalina, Alaska, does not have a hotel, a restaurant or a movie theater. But it has a very big lawsuit that might affect the way the nation deals with climate change.

Kivalina, an Inupiat Eskimo village of 400 perched on a barrier island north of the Arctic Circle, is accusing two dozen fuel and utility companies of helping to cause the climate change that it says is accelerating the island's erosion.

Blocks of sea ice used to protect the town's fragile coast from October on, but "we don't have buildup right now, and it is January," said Janet Mitchell, Kivalina's administrator. "We live in anxiety during high-winds seasons."

The village wants the companies, including ExxonMobil, Shell Oil, and many others, to pay the costs of relocating to the mainland, which could amount to as much as \$400 million.

The case is one of three major lawsuits filed by environmental groups, private lawyers and state officials around the nation against big producers of heat-trapping gases. And though the village faces a difficult battle, the cases are gathering steam.

In recent months, two federal appeals courts reversed decisions by federal district courts to dismiss climate-change lawsuits, allowing the cases to go forward. In Connecticut, environmental lawyers joined forces with attorneys general of eight states and the City of New York seeking a court order to reduce greenhouse gas emissions.

In Mississippi, Gulf Coast property owners claim that industry-produced emissions that contribute to climate change increased the potency of Hurricane Katrina in 2005.

And although a federal judge in Oakland, Calif., dismissed the Kivalina suit in October, the village is appealing the decision.

Tracy D. Hester, who has taught a course in climate lawsuits at the University of Houston law school, said that with the issues "very much in play" in three circuits of the federal court system, "the game pieces are being set for eventual Supreme Court review."

The cases need not even get that far to have an impact, said James E. Tierney, the director of the National State Attorneys General program at Columbia Law School.

The New York Times

Kivalina alleged in its complaint that the industry conspired "to suppress the awareness of the link" between emissions and climate change through "front groups, fake citizens organizations and bogus scientific bodies."

That claim echoes those in suits against the tobacco industry that ultimately led to industry settlements and increased government regulation.

If the climate-change cases even get to the discovery stage, and if the energy industry possesses embarrassing e-mail messages and memorandums similar to those that proved devastating to tobacco companies, Mr. Tierney said, "it's a hammer" that could drive industries to the negotiating table.

The cases generally rely on the common-law doctrine of nuisance, the same concept that allows neighbors to sue one another over noises, odors and the like that interfere with the use or enjoyment of property. In the context of climate change, such cases were once derided as frivolous long shots that would be shot down quickly. Scott H. Segal, a lawyer for energy companies, joked in a 2004 article in *Crist* magazine that the cases brought "new meaning to the term 'nuisance lawsuit.'"

No one is laughing now. In a report issued last year, Swiss Re, an insurance giant, compared the suits to those that led dozens of companies in asbestos industries to file for bankruptcy, and predicted that "climate change-related liability will develop more quickly than asbestos-related claims."

The pressure from such suits, the report stated, "could become a significant issue within the next couple of years."

The American Justice Partnership, a business-oriented group that is critical of the plaintiffs' bar, argued in a 2008 report that the conspiracy accusations made the Kivalina case "the most dangerous litigation in America."

The case could stifle debate over climate-change issues, the report stated, and increase "the threat of being named as a defendant or co-conspirator subject to invasive and costly inquiry."

President Obama's senior adviser for energy and climate change, Carol M. Browner, underscored the potential for the suits to affect policy in a briefing with reporters in September. Citing the Connecticut case, Ms. Browner warned that "the courts are starting to take control of this issue," and argued that setting environmental standards "is best done through legislation."

She suggested that the situation increased the pressure on Congress to pass legislation to curb heat-trapping gases. The Environmental Protection Agency is drafting regulations on such emissions as dangerous pollutants under the Clean Air

Act, an authority confirmed by the 2007

E.P.A. A bill to curb such suits the House last year has not cleared the Senate. And the climate talks last in Copenhagen produced little.

That sense of inaction has left a situation in which those intent on reducing gas emissions could try to make the courts "a significant battleground," said Harold Kim, an official in the administration of President George W. Bush who is now senior vice president for reform initiatives at the United States Chamber Institute for Legal Reform. "This is trending into an area that could be explosive — for better or for worse, depending on how you look at it," Mr. Kim said.

Pat D. Hemlepp, a spokesman for American Electric Power, a defendant in the Connecticut case, said that he could not comment directly on the suit, but that "our view is that litigation is not the appropriate way to address climate concerns."

The company, Mr. Hemlepp said, supports the House bill. "We are not one of those heels-dug-in, just-say-no companies on climate action," he said.

Matthew F. Pawa, the lawyer who helped

organize the Kivalina litigation, said he was not about affecting public policy.

"I filed these cases because I expect and want to win in court," Mr. Pawa said. "I'm a litigator, and that's what I do."

Despite the recent victories, climate lawsuits are still at a preliminary stage. Mr. Segal, the lawyer who made the "nuisance lawsuit" joke, said issues like proving climate change, its link to the companies and the further link to the damage "have not been addressed."

If the cases go to trial, he said, "these burdens will be particularly tough in the climate context."

A lawyer working with Mr. Pawa in the Kivalina suit, Stephen D. Susman, agreed that the road ahead was uphill.

"The legal landscape is horrible," said Mr. Susman, of Houston. "No lawyer can say this is a way to make money." He also said he doubted that the cases would prompt large numbers of class-action suits, since courts would not be likely to allow the formation of a class of litigants among people with such diverse experiences.

Michael B. Gerrard, a professor at Columbia University law school and director of its Center for Climate Change Law, said the first efforts to sue tobacco companies had appeared to be weak as well. "They lost the first cases; they kept on trying new theories," Mr. Gerrard said, "and eventually won big."

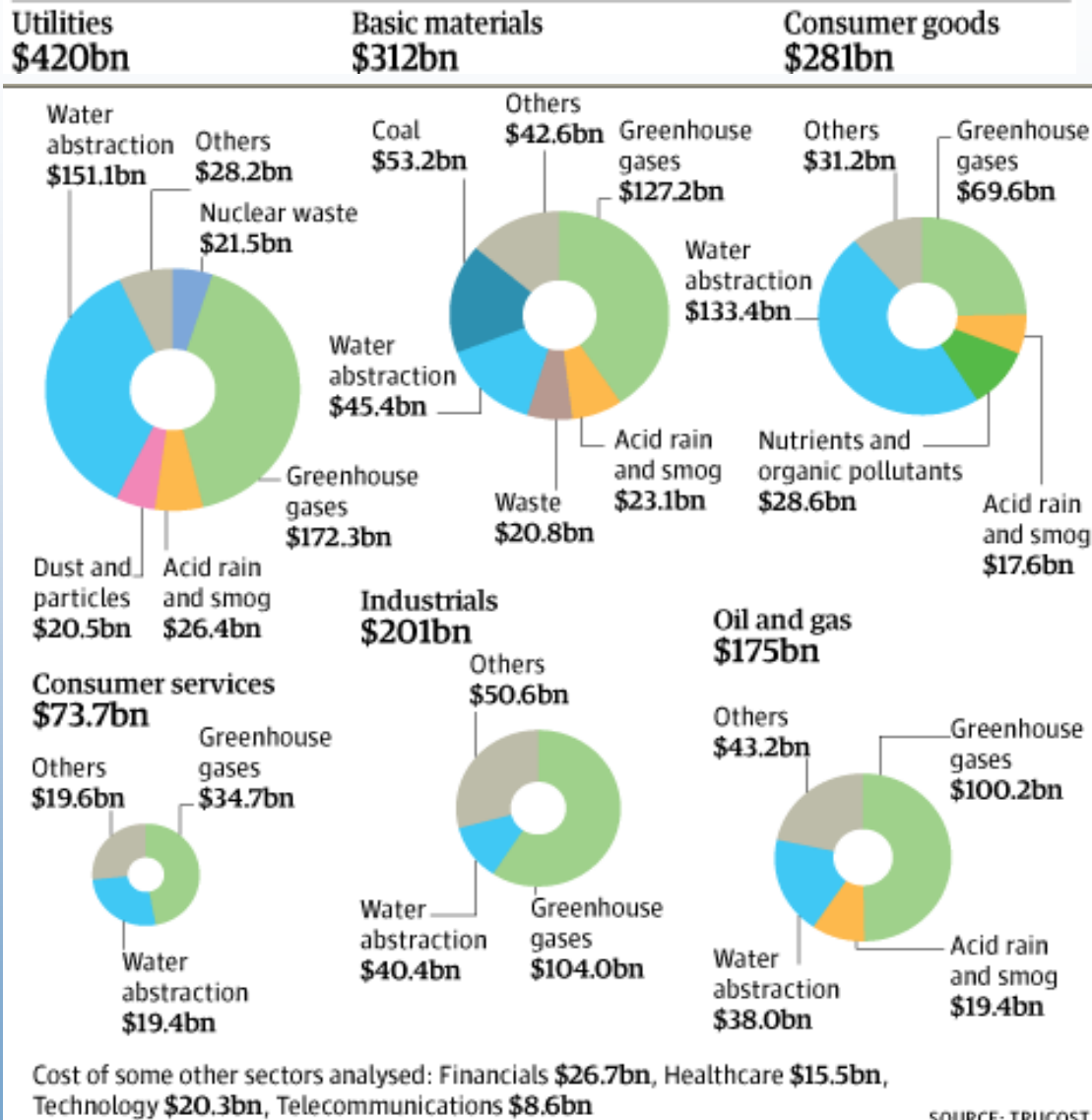
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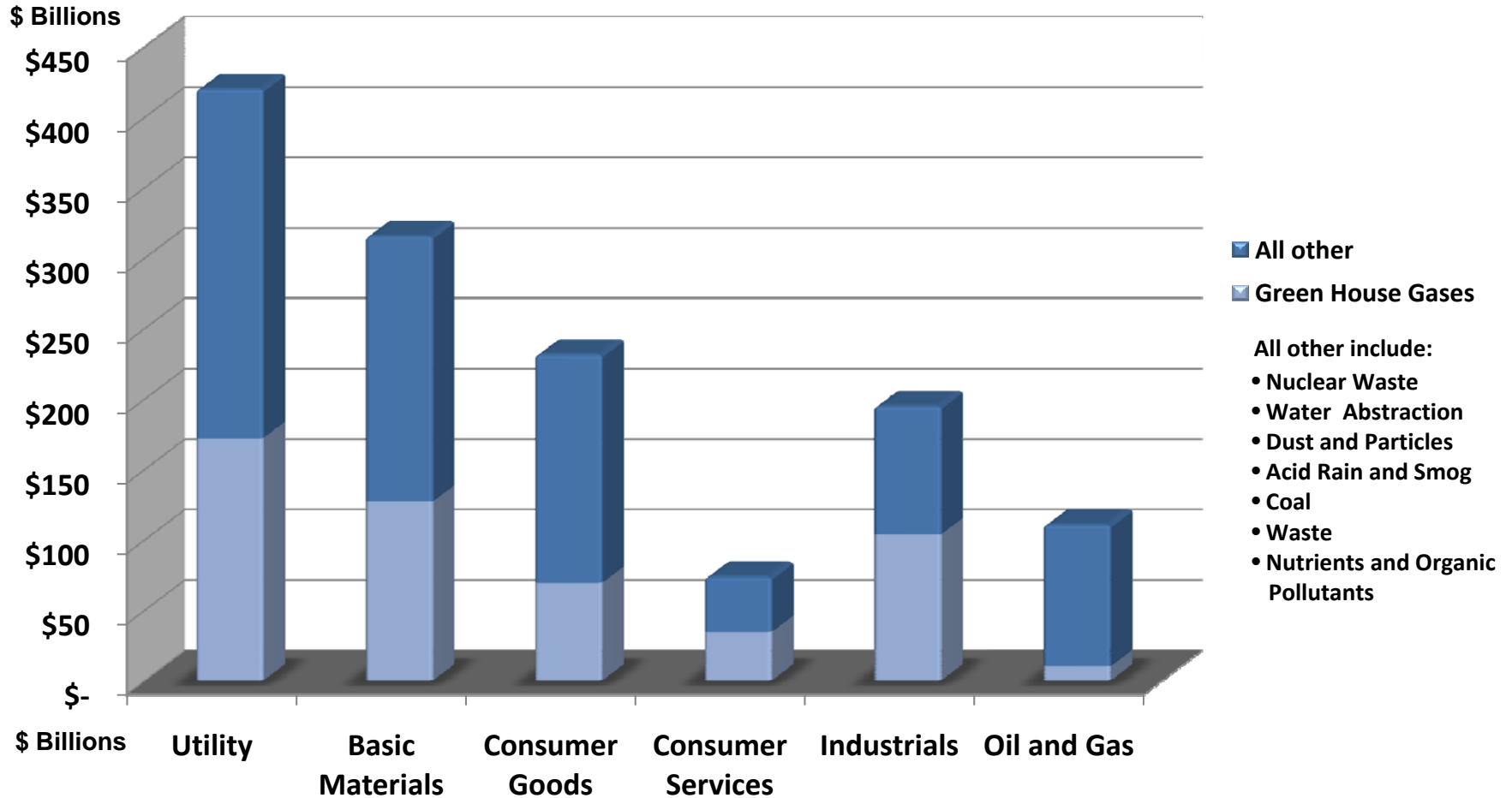
The cost of damage to the environment by business sectors





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The cost of damage to the environment by business sectors



Cost of some other sectors analyzed: Financials \$26.7bn, Healthcare \$15.5bn, Technology \$20.3bn, Telecommunications \$8.6bn

Source: TRUCOST

Climate Products

Insurance Can Be Applied to Facilitate Mitigation & Adaptation ...



- Insurance focuses on risks to private assets
- Insurance is the ultimate economic shock absorber
- Insurance accounts for 7% of the global GDP (World Insurance Forum 2010)
- Climate Change is about risks to both private assets and public good
- The Key : Find the Intersections
 - Land use
 - Power
 - Water
 - Transportation
- Focus on public / private partnership
- Insurers are creating products today to facilitate adaptation and mitigation to climate change risk ...

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What Do Insurers Need to Assist Stakeholders to Adapt to and Mitigate Risk of Climate Change ?

- **Insurers must be allowed to use their core skills to send risk based price signals**
 - Higher cost should incentivize risk reduction
 - Government indemnity or pools which spread or mask risk may inadvertently increase moral hazard and overall risk
- **Climate Policy that addresses governance gaps**
 - Government should consider regulation / law changes that recognize the costs of mitigation must be passed on to users IF we are to truly incorporate this EXTERNALITY
 - Policy makers must consider new / emergent resource / rights conflicts that present in a non-fossil fuel paradigm
- **Climate Policy that enables markets to function properly**
 - Incentives should be constructed carefully to avoid moral hazard increase and market instability
 - Consider whether finance subsidies “undo” incorporation of the EXTERNALITY
 - Transition from subsidy to independence must be mapped
- **Climate policy that recognizes the regional nature of climate change**
 - One size does not fit all impact risks – especially with respect to CCS (Carbon capture and sequestration)
 - Solutions should be regionally tailored but globally aligned / compatible

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Current Zurich climate change product activities



1. **Carbon credits**
Political risk coverage for carbon credits
Carbon credit securitization
2. **Motor**
 - a. Discounts for hybrid vehicles*
 - b. PAYD auto insurance & Telematics
3. **Alternative energy: full suite of p/c coverage**
Solar
Wind
Hydropower
Biomass
Geothermal
Wave / tide (under review)
4. **Carbon Capture and Sequestration**
5. **Directors and Officers**
Coverage extension for climate related / environmental mismanagement claims

6. **Green Building Construction Wrap: GL / WC / PI for “green” building projects**
- 7 **Green Edge / Better Green: Property coverages: commercial and personal lines**
 - a. Green re-build extensions – addresses efficiency
 - b. Off-grid power BI extension – addresses DER
 - c. Fortification
8. **Water Re-Use / Drought Coverage (in process)**
9. **REDD+ agricultural products (in process)**
10. **Smart grid / efficiency (in process)**

Climate Products

*Where state law permits, discount available by Farmers Insurance.