



Photo by Matt Brown.

U.S.–MEXICO FUTURES FORUM: CLIMATE

Climate change may lead to rising water levels, despite denials.

Reversing the Tide of Apathy

by Christian E. Casillas

Cooperation and action among the world's nations is urgently needed to limit greenhouse gas emissions and avert the most dire consequences of climate change. However, cooperation among countries requires convincing their internal constituencies, primarily businesses and the voting population, that the near-term benefits of action far exceed the costs.

At the 2011 U.S.–Mexico Futures Forum, the discussion that unfolded during the panel on climate change focused on how impasses in the climate debate can be overcome. Most agreed that the engagement of civil society would be critical in pressuring governments to aggressively tackle the problem.

Mexico's Special Representative for Climate Change and forum panelist Luis Alfonso de Alba believes that there is now greater willingness among nations for cooperation

on climate negotiations than in the past. However, he explained that consensus will be difficult if climate change is treated as strictly an environmental issue. While the action of national governments is paramount, he believes that there should be an increased role for local governments and civil society.

Beatriz Paredes Rangel, a deputy in Mexico's national assembly and former head of the Partido Revolucionario Institucional (Institutional Revolutionary Party), observed that many in Mexico have the impression that powerful industries whose bottom lines are related to the current energy infrastructure — either through fossil-fuel production or its use — heavily influence American politics. Civil society needs to become more active in order to counter these embedded interests. De Alba agreed that

civil society will probably be the most important lever forcing lawmakers to enact effective climate policies.

Moral leadership in Washington has been notably absent with respect to climate issues, observed Steve Weissman, a panelist and the director of Berkeley's Energy and Cleantech Law Program. President Obama did not mention climate change once during this year's State of the Union address, traditionally used to highlight issues deemed important to the voting public. Weissman noted that a lack of progress on climate issues cannot be blamed on one particular party. No significant climate legislation has found its way into law under Democratic- or Republican-controlled Congresses.

Recent findings from an April Rasmussen Reports national survey highlight the voting population's current ambivalence regarding climate change. The survey found that while 62 percent of polled voters in the United States believe that global warming is a "somewhat serious" problem, only 34 percent think it's a "very serious" problem. A more telling poll, conducted in October of 2010 by the Pew Research Center, found that 53 percent of Republicans believe that there is absolutely no evidence of global warming, a figure that increases to 70 percent among supporters of the "Tea Party" movement. In the face of

figures such as these, it is critical to sell the fight against climate change as something that is good for Democrats, Republicans, Independents and Tea Partiers.

For de Alba, the key to mobilizing public opinion is finding a way to frame climate change as an opportunity rather than a challenge. Christopher Edley, Dean of Berkeley Law, agreed that tackling the problem should be presented as something both feasible and positive, noting that people "want to work on something where there's hope." Edley advocated a focus on technological solutions to climate change because of the can-do optimism such an effort could generate. "Making this into a Sputnik moment is really important," he said, "even though, in purely analytical terms, tech may not be the place to start."

Addressing the consumption side of the problem, Maria Echaveste of Berkeley Law noted, "Our underlying system is dominated by a market-oriented, consumerist system that is unsustainable, but it is so deeply ingrained it is hard to change... How do we begin to have a different ideology?" The Mexican Federal Senator Adriana González Carrillo raised a similar point, saying that when it comes to global natural resources, "we know the price, but we don't know the value."

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Mexico City's skyline under a layer of smog.



Photo by Ilija A. Magun.



U.S. solar technology helps power the new Capital Museum in Beijing.

Photo by Michael Kan.

In the United States, the electricity and transportation sectors together contribute almost two-thirds of annual greenhouse gas emissions, primarily in the form of carbon dioxide. While carbon dioxide in atmospheric concentrations is not toxic to human health, there are myriad co-pollutants released during fuel combustion, including nitrogen and sulfur oxides. These are the primary contributors to smog, acid rain and the formation of fine particulate matter, one of the primary urban pollutants leading to increased mortality rates from cardiovascular and respiratory illnesses. The Environmental Protection Agency (EPA) estimates that every dollar spent on reducing pollution from power plants could result in \$5 to \$13 in health benefits.

Clean air is something that most Americans care about, and a majority support regulations that would improve air quality. Although a measure was recently passed in the U.S. House of Representatives that would prevent the EPA from regulating industrial carbon emissions, this policy is contrary to what the polls indicate Americans support. A recent poll commissioned by the American Lung Association found that 69 percent of voters are in favor of creating stricter limits on air pollution. Significantly, 68 percent of voters feel that Congress should not prevent the EPA from updating clean air standards, and 69 percent believe that pollution standards should be set by the EPA, not Congress.

The argument for the role of renewables in energy security is a more complicated sell. Collier pointed out that energy security has been on the radar of both Democrats and Republicans since the Carter administration. He also reminded listeners that energy security is not solely an American problem. For Mexico, declines in oil production

Robert Collier, a visiting scholar at UC Berkeley and a forum panelist, proposed a three-pronged approach to reframing the debate: “Climate change has been framed as a science issue — unfortunately too many Americans don’t believe in science. It has been framed as an environmental disaster — ‘Save the polar bears’ — but Americans don’t really care that much about polar bears. It has been framed as green jobs, but they haven’t really come through. The idea of losing the tech race has had a bit of traction, but not much.” The impasse won’t be broken, he maintained, until each nation sees fighting climate change as something in its own national interest. To convince a variety of countries with disparate interests of the urgency of the problem, Collier suggested a focus on the overlapping issues of climate change, public health and energy security. These issues “are overlapping

in terms of policy, political results and final results,” he argued.

Collier isn’t alone in the push for a greater emphasis on the relationship between public health and climate change. A group of researchers at the Center for Climate Change Communication at George Mason University recently argued that focusing on public health provides the opportunity to connect climate change to the respiratory issues that many people face, such as allergies and asthma. The public-health framework also allows for a positive spin by focusing on a healthier future rather than looming disaster.

There is ample data connecting public health with emissions. Citing a World Health Organization study, Collier noted that, globally, 800,000 people die every year because of ambient air pollution, while millions more suffer increased morbidity.

create the danger of decreasing oil exports and lower government revenue from the state-owned *Petróleos Mexicanos*. China, on the other hand, is dependent on rapidly increasing oil imports from the Middle East, Africa and South America, all of which must pass through shipping lanes controlled by the United States. Factors such as these may push more nations toward renewable energy.

However, reducing dependence on Middle Eastern oil doesn't necessarily mean transitioning to cleaner energy sources. As crude oil prices hover above \$100 a barrel, Republicans in Congress have responded by working to increase access to off-shore oil drilling. In addition, the Obama administration's commitment to reducing dependence on foreign oil includes increasing access to Canada's oil fields, which also doesn't bode well for the environment. Canada has been the biggest supplier of crude oil to the United States since 2006. Its immense proven oil reserves, second only to Saudi Arabia's, are found in tar sands. The energy needed to extract and process the oil from tar sands results in emissions that range from 10 to 100 percent greater than those from conventional oil.

Weissman noted that renewable energy typically gains traction when natural gas and oil prices are high, but interest quickly fades when fossil fuels become cheap again. Clyde Prestowitz, the president of the Economic Strategy Institute, added that technology which makes sense in the marketplace needs to be part of the answer. However, technologies are not competing on a level playing field, since the indirect environmental and social costs of fossil fuels are not reflected in their price. Therefore, it is critical to develop regulations that put a price on greenhouse gas emissions. In the United States, the answer to a lack of federal regulation



Luis Alfonso de Alba speaks at a UN conference in Germany.

has been the creation of state-level renewable portfolio standards (RPSs), mandating the integration of cleaner generation technologies. While state RPSs fill the void created by the lack of federal action, Weissman pointed to several drawbacks. One is that they vary widely between states, with some, like California, setting ambitious goals and others setting moderate targets or none at all. Weissman explained that the RPS is an imprecise instrument that only focuses on energy supply, primarily strengthening the solar and wind industries. Due to the intermittent nature of solar and wind, these generation technologies don't impact base-load generation, which is often met by coal.

Many analysts have argued that transitioning to cleaner energy will result in a stronger economy. While the state of the economy always impacts people's votes, statistics on

jobs and economic growth are among the most susceptible to manipulation and cherry-picking. The idea of a green economy has taken root in public dialogue, yet the parameters defining what such an economy might look like have varied. Weissman pointed out that the economic impact of green jobs would likely vary depending on geographic region, noting that in many southeastern states, where fossil fuel resources form an important part of the economy, there is a feeling that enacting a renewable energy agenda would be contrary to economic development goals.

Perhaps the conversation around the economic benefits of a more environmentally benign economy — one not based on the extraction of finite, private fuel resources — needs to be framed around the winners and losers. Putting a price on greenhouse gas emissions will surely result in

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higher costs in manufacturing and transportation, but how will these costs be distributed? A study last year by UC Berkeley researchers suggested that per unit of energy output, there are more jobs supported with renewable energy generation than fossil fuel generation. Transition to low-carbon infrastructure doesn't have to result in a slumped economy, but as the United States drags its feet on federal incentives and regulations, other countries are gaining ground in the technology markets. De Alba pointed out that China is leaving the U.S. behind in many renewable energy markets.

Have there been any successful campaigns that reframe climate change in terms of public health, energy security or a green economy? In the United States, one does not need to look any further than California and the 2010 statewide vote on ballot proposition 23. Prop 23 was funded by a number of oil companies, with the purpose of delaying the implementation of Assembly Bill 32 (AB 32), California's Global Warming Solutions Act. AB 32 calls for the reduction of California emissions to 1990 levels (a 15-percent reduction from 2010 levels) by 2020, using both regulation and market mechanisms. The "No on Prop 23" campaign developed a very simple trio of messages. The campaign villainized the funders, focusing on Koch Industries and the oil refiners Tesoro and Valero, all of which have poor environmental records. Advertisements argued that Prop 23 threatened clean air, turning "the clock back on efforts to reduce illness and death from air pollution." The campaign also argued that "the oil companies deceptively claim they want to reduce unemployment, but killing off California's fastest growing industry is a recipe for higher, not lower, unemployment." The messages were based on numerous polls, ensuring that they resonated with voters. Prop 23 was defeated by a 23 percent margin.

The Prop 23 vote in California provides an example of how more astute messaging can be used to advance an emissions reduction agenda, or at least prevent it from losing ground. The campaign avoided diving into the numbers or the nuances of the messages. It seems that people just want to know the punch line, as long as it is plausible, and they see a clear benefit.

In less-affluent countries, reducing emissions can have much clearer benefits for the marginalized majority. Collier has noted the merits of public transportation systems in Latin American economies. Mexico offers an example of the opportunities in the transportation sector to reduce greenhouse gas emissions, drastically improve clean air and advance the social welfare of the poorest urban constituents. The authors of a 2009 World Bank report estimate that air pollution in Mexico City is responsible for

4,000 premature deaths every year and that 40 percent of air particulates come from the transportation sector. They also calculate that \$530 per person are lost due to time spent in congestion. Another World Bank study concluded that carbon emissions can be reduced, at a savings, by increasing the availability of bus rapid transit (BRT). In the past three decades, experiments with BRT in Brazil, Peru, Colombia and Mexico have shown that investment in BRT is not just good for the climate, it's good for economies, energy security and public health.

However, if what the world needs is concerted, collective action, then what is the significance of a rogue U.S. state or a progressive nation? In a world beset by uncertainty, powerful and embedded interests and misleading media campaigns, empirical evidence is critical. Edley noted that pioneers such as California can push forward new policies so that others can learn what works and what doesn't. California is the world's eighth-largest greenhouse gas



Photo by Kathryn Hansen / NASA.

emitter and eighth-largest economy. Its forward-looking climate approach has catalyzed other states to follow its lead on successful policies. California led the world in developing the first low-carbon fuel standard for transportation and recently updated its Renewable Portfolio Standard requiring utilities to have 33 percent of their electricity production coming from renewable energy sources by 2020, one of the most aggressive mandates in the United States. It remains to be seen what the impacts of California policies will be on its air quality and economy. The rest of the nation will surely be taking notes as California's story unfolds.

The current impasse on climate regulation and the historic missed opportunities are the result of politicians responding to the political winds of their constituencies. It has become clear that talking science hasn't sparked the public's concern. If civil society is going to successfully pressure politicians to act on climate change, then the message has to be made personal. If civil society mobilizes

[The U.S. Coast Guard measures the effects of climate change in the Arctic Sea.](#)

and starts to demand government action, the world will begin to transform into a rich policy laboratory. The most effective policies will provide evidence of the public health, energy security and economic benefits of reducing fossil fuel dependence. And they will also help avert the more dire consequences of a quickly changing climate.

[The panel "Climate Change" was one of three sessions of the U.S.–Mexico Futures Forum held in Berkeley on April 15-16, 2011. The presenters included Ambassador Luis Alfonso de Alba, Mexico's Special Representative for Climate Change; Robert Collier, visiting scholar at the Center for Environmental Public Policy, UC Berkeley; and Steve Weissman, Director of the Energy and Cleantech Law Program, UC Berkeley Law.](#)

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[Christian E. Casillas is a Ph.D. candidate in the Energy and Resources Group at UC Berkeley.](#)

