

1-7-2011

The Need for More Academics in Carbon Market Formation

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In the wake of climate change negotiations in Cancún, and as New Mexico, California, Ontario, Quebec, and British Columbia design their own greenhouse gas markets, I am struck by the dearth of North American academics involved in the creation of climate change policy. Those tracking and attempting to influence the design of these markets are not few; they encompass representatives from energy to agricultural industries, industry trade associations like the International Emissions Trading Association, non-governmental organizations such as the Pew Center on Global Climate Change, World Resources Institute, and Stockholm Environment Institute. However, all of these interests have funding sources with an agenda. Academia is not completely immune to the plague of industry or interest group-sponsored research, but it is more protected as professors usually do not owe their salary to one of these entities and some external funding sources like the National Science Foundation have no anticipated outcome of studies or papers. Involving more academics can help provide a more unbiased review with equal emphasis on how policies will impact a variety of industries and the environment.

Why else should more academics be involved in the design of these markets? Academics can help to ensure that the policy implemented is consistent with the science available on the topic. Policy makers are not always well-informed of the scientific implications of policy decisions. Consider the Clear Skies Initiative of 2002 that created a cap-and-trade system for mercury emissions from power plants. While cap-and-trade is a useful tool for gases that mix globally, it is not the tool of choice for pollutants with local fallout since companies can choose to buy permits to pollute from competitors and create hotspots of pollution.

Involving academics can also help anticipate complications that may occur due to the passage of proposed legislation. Under the Kyoto Protocol's Clean Development Mechanism, companies in developing countries that mitigate N₂O emissions from adipic acid plants are able to create offset credits. However, market research has shown that this activity is so lucrative that offset creation from adipic acid plants in developing countries has given these plants a significant advantage over plants in developed countries that voluntarily installed N₂O emissions abatement equipment in the 1990s and are not eligible to earn offset credit. Therefore, the adipic acid plants in developed countries cannot compete, are shutting down, and are sending the market demand to the plants in developing countries. These plants in developing countries are then able to earn even more offset credit for emissions that would have been mitigated if they were created from plants in developed countries. In 2008 and 2009 alone, an estimated 13.5 million bogus offsets of this type were sold,¹ and the European Commission has now banned use these types of CDM projects within the EU Emission Trading Scheme after 2012. A forward-looking policy analyst may have been able to predict this development prior to this policy blunder.

With the exception of a few academics like Professors Robert Stavins of Harvard and David Victor of Stanford, academia hasn't yet embraced the adequate fodder for research inherent in the creation of comprehensive greenhouse gas legislation because of the siloed nature of US universities. The students and professors that conduct in-depth research usually come from Masters and Ph.D. programs housed

¹ Anja Kollmuss and Michael Lazarus, "Industrial N₂O Projects under the CDM: Adipic Acid – A Case of Carbon Leakage?" Stockholm Environment Institute, 2010.

in traditional disciplines like economics, civil or mechanical engineering, and political science. Courses that professors offer tend to be germane to the department with little depth in themes or issues that require multi-disciplinary thinking. Additionally, because students and professors in these disciplines are rewarded most for publications that appear in journals specific to their discipline instead of interdisciplinary journals, there is a disincentive to be involved in projects or research that crosses disciplines.

Despite these trends, few interdisciplinary graduate programs like Berkeley's Energy and Resources Group have begun to sprout. And, the emergence of some peer-reviewed interdisciplinary journals like Elsevier's "Climate Policy" promises hope for the field. However, changes in academia tend to move slowly while brainpower and attention to legislative design is needed immediately. For a problem as multi-faceted and complex as climate change, academics cannot stand on the sidelines of the policy design debate. Their input is necessary to prevent the creation of a piecemeal climate policy shaped by lobbying efforts instead of comprehensive legislation that will make meaningful steps towards the Intergovernmental Panel on Climate Change's recommendation of keeping warming impacts within 2 degrees Celsius by 2100.