

**Issues with Regional Climate Change Impact Projections  
In the Third U.S. Climate Action Report to the UN-FCCC**

***“Science cannot predict the climate and its impacts in Milwaukee, Mumbai, or Moscow half a century ahead very accurately, and it may never be able to do so.”*** (IPCC Third Assessment Report, Working Group III, page 96.)

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In December 2001, API submitted comments to the Environmental Protection Agency responding to their request for review of the draft “Third U.S. Climate Action Report” which was being developed for submission to the Framework Convention on Climate Change (FCCC). A central element in API’s comments is seen in the following paragraph from the cover letter of our submission:

“Particularly important for a report to the UNFCCC covering the potential impacts on the US, the current draft generally reflects a critical NRC conclusion that “one of the weakest links in our knowledge is the connection between global and regional projections of climate change.” (Chapter 1, page 6, lines 36-37) As discussed in the attached Specific Comments, however, parts of Chapter 6 go beyond this “weakest link in our knowledge” in projecting regional climate change impacts, and these sections should be revised.”

API’s primary concern was with the level of implied credibility of regional climate impacts discussed in the draft of Chapter 6 of the *Climate Action Report* (CAR) that were largely taken from the Clinton Administration report, the *U.S. National Assessment*. As indicated by the above quote from the IPCC *Third Assessment Report*, however, even the IPCC places little credibility on regional climate projections. Because climate models generate such inconsistent regional and local climate impacts, even with similar assumed changes in global climate, the resulting regional and local climate impacts are simply not useful guidance for policy makers or regional planners and could potentially do more harm than good.

The final CAR report, recently submitted to the UN and posted on the EPA website ([www.epa.gov/globalwarming/publications/car/index.html](http://www.epa.gov/globalwarming/publications/car/index.html)) regrettably contains much of the original regional climate impact descriptions drawn from the Clinton Administration report, the *U.S. National Assessment*.

However, the final report also acknowledges some of the very serious uncertainties about the reliability of regional climate projections. Following are some examples of this uncertainty as expressed in the CAR.

- “One of the weakest links in our knowledge is the connection between global and regional projections of climate change.” (Chapter 1, page 6)
- “The National Research Council’s response to the President’s request for a review of climate change policy specifically noted that fundamental scientific questions remain regarding the specifics of regional and local projections.” (Chapter 1, page 6)
- “[I]t is important to note that this chapter cannot present absolute probabilities of what is likely to occur. Instead, it can only present judgments about the relative plausibility of outcomes in the event that the projected changes in climate that are being considered do occur.” (Chapter 6, p. 82)
- “At the same time, considerable uncertainties remain because the actual impacts will depend on how emissions change, how the climate responds at global to regional scales, how societies and supporting technologies evolve, how the environment and society are affected, and how much ingenuity and commitment societies show in responding to potential impacts.” (Chapter 6, page 83).