Environmental Watch

Examining Environmental Claims and Their Costs • July 2006

Misreading Forest Fires & Climate Change

Claim

"Western wildfires linked to climate change"
Seattle Times, July 7, 2006, http://archives.seattletimes.nwsource.com/cgi-bin/texis.cgi/web/vortex/display?slug=fires07&date=20060707 (accessed July 30, 2007)

"Climate change effects every single natural process on the planet from oceanic currents to forest fires. This threat is not only imminent, it is present."
Entry on the DailyKos by smokymonkey, http://www.dailykos.com/storyonly/2006/7/6/144554/5111, July 6, 2006 (accessed July 27, 2006)

Facts

A recent study on the impact of climate on forest fires is being widely touted as more evidence of global warming. The study, "Warming and Earlier Spring Increases Western U.S. Forest Wildfire Activity," appeared in Sciencexpress[1] and argues that increased temperatures during the last 20 years have increased the length of the fire season and the intensity of forest fires.

The article is careful in its claims, but the extrapolations from the article are much less careful, arguing that it is evidence that the impact of climate change is "happening now in forest ecosystems through fire."[2] That claim, however, relies on a skewed reading of the study.

Furthermore, the study actually makes thinning and other types of activities in the forest more important to create healthy forests. Evironmental activists, while highlighting the global warming link, play down or ignore this conclusion that the authors themselves advocate in their piece.

Study Does Not Address Global Warming

In the article, the authors note that during the period from 1987-2003 the average summer temperatures were 0.87º C higher than the previous 17-year period. During this time, forest fires began earlier in the season, stayed later and burned an increased number of acres. The implication, drawn by some, is that global warming is causing this increase in forest fires.

The authors themselves, however, note "whether the changes observed in western hydro-climate and wildfire are the result of greenhouse gas induced global warming, or only an unusual natural fluctuation, is presently unclear."[3] The issue of global warming is not actually addressed. Unfortunately, the link is simply assumed by those who reported on the story making the logic behind the claim circular. In other words, if we assume global warming is increasing temperatures, it will cause more forest fires which, in turn, becomes evidence of dramatic global warming. It is undeniable that temperatures have increased in recent years. What role climate change has in that trend is less clear and this study sheds no light on that important issue and does not claim to.

The problem with using this study as "evidence" of global warming goes beyond claiming a tautology proves their point. The sceince of climate change is increasingly overwhelmed by politics and the way this study is being used to "demonstrate" global warming only contributes to the politicization of the issue.

1 A.L. Westerling et al., http://www.sciencemag.org/cgi/rapidpdf/1128834v1.pdf (accessed July 10, 2006)

2 T.W. Swetnam, quoted in Sara Goudarzi, "Global Warming Fuels U.S. Forest Fires," LiveScience.com, July 6, 2006, http://www.livescience.com/environment/060706_globalwarming_fire.html (Accessed July 27, 2006)

3 Westerling et al., p. 4

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Active Forestry to Reduce the Impact

More important, however, is that one conclusion of the report is ignored. The increased wildfire activity and increased temperatures of recent years demonstrate that improving forest health is an important part of reducing the number of forest fires. The authors note that if climate change is increasing wildfire frequency it "underscores the urgency of ecological restoration and fuels management to reduce wildfire hazards to human communities and to mitigate ecological impacts of climate change."[4]

That message, however, is already being ignored by environmental activists who oppose active management of forests. In the same issue of Sciencexpress, Steven Running uses the research on forest fire to minimize the value of thinning activities. He writes that the Bush Administration and the Congress support a "controversial new land management policy called 'Healthy Forests,' whose stated objective is to clean out dead and dying trees in the west to reduce the risk of wildfires. This initiative blames increasing wildfire activity in the western United States solely on increasing stand density and the buildup of dead fuel as a result of fire exclusion policies..."[5]

The characterization of the policy as blaming wildfires "solely" on unhealthy forests is not only ungenerous but incorrect. Most important, however, is the question of why those who are concerned about global warming would express concern about the increasing severity of wildfires but be uninterested in a solution. This isn't the case with other projected impacts of climate change. When planning a replacement for the waterfront freeway, the City of Seattle has budgeted for a large seawall in anticipation of higher water levels due to climate change. Active management of forests is a similar type of response.

The authors note that due to rising temperatures unhealthy forests are even more suceptible to fire, making reduction of other factors causing wildfire more important. In Washington state, the Forest Health Strategy Work Group concluded that "the keystone to achieving forest health across all ownerships in Washington is that well managed forests are healthy forests."[6] Thinning overcrowded forests, therefore, is key to reducing the threat to wildfire and is a strategy that becomes more important with rising temperatures.

Costs

The cause of the increased wildfire activity will be an ongoing subject of debate. It is clear that increased summer temperatures increase wildfire severity. It is also clear that poor forest health, and other factors, contribute to wildfire intensity. During the past two decades, as these factors have all come into play, the total acreage burned by wildfires has dramatically increased.

The combination of these factors make returning forests to a healthy state more important. Whether the increase in temperature is cyclical or indicative of a longer warming trend, recent fire activity demonstrates the small margin for error when unhealthy forests meet warm summers.

Policymakers should focus not merely on the long-term climate implications of this study, but also on the short-term policy implications for managing our forests. Focusing only on climate change ignores a key part of the solution and will have a dramatic cost in natural resources and wildlife habitat.

[4] Westerling et al., p. 4

[5] Steven W. Running, "Is Global Warming Causing More, Larger Wildfires?" July 6, 2006, http://www.sciencemag.org/cgi/rapidpdf/1130370v1.pdf (accessed July 27, 2006), p. 1

[6] Forest Health Strategy Work Group, "A Desirable Forest Health Program For Washington's Forests," December 30, 2004, http://www.dnr.wa.gov/htdocs/rp/forhealth/fhswgc/pdf/exesummary.pdf (Accessed July 27, 2006), p. 6