

Environmental Watch

Examining Environmental Claims and Their Costs • December 2006

Using Precaution to Increase the Threat of Climate Change, But Not to Solve It

Claim

“The standard expected-utility framework involves aversion to risk and in this narrow sense a ‘precautionary principle’. ... Unfortunately, industry lobbying prevented a ban on asbestos and the delay of fifty years led to considerable loss of life. Application of the precautionary principle could have saved lives.”

Stern Review Report on the Economics of Climate Change, http://www.hm-treasury.gov.uk/independent_reviews/stern_review_economics_climate_change/stern_review_report.cfm (Accessed 12/20/06), p 33-4.

Facts

Earlier this year, the British Government published its assessment of the costs and benefits of tackling global warming. Already a number of critiques of that report have been published, both on the science and the economics which are at the core of the report¹. The report also uses a number of tactics to shift the burden of proof onto anyone who disagrees.

The primary tactic along these lines is the so-called “precautionary principle” which argues that when science is unclear, policymakers should take a precautionary, i.e. activist, approach. There are a number of problems with this approach². In this case it serves to increase the potential threat of climate change but may actually prevent actions that can reduce the impact.

Using Precaution When Tackling a Problem

The Stern Review argues, along with many others, that when science is incomplete, it should not prevent policymakers from taking action. Waiting for clear science, they say, would undoubtedly cost lives. The example they provide is asbestos. Had asbestos been banned, they postulate, many lives would have been saved. The problem was that “industry lobbying” prevented the ban.

The result of this principle is that anytime there is a “concern,” policymakers are obliged to take any action they think necessary, with or without scientific support. Opponents, on the other hand, cannot use uncertainty as an argument, removing arguments about unintended consequences and raising the bar for proof beyond a point of reasonable doubt.

History shows that adopting such an approach is not benign or even precautionary.

Mosquitoes and Climate Change

Among the many potential impacts of climate change raised by the Stern Review is the impact of mosquito-borne malaria in poor African countries. The problem is not only the directly caused mortality, but the cost to fight malaria in countries that have little funding. They also note the inherent unfairness of an impact caused primarily by wealthy countries that emit CO₂ whose impacts are borne disproportionately by poor countries.

The Stern Review notes “Climate change will potentially exacerbate this vulnerability as a greater number of malaria carrying mosquitoes move into previously uninfected areas. This is

¹ For the best critique see William Nordhaus, “The Stern Review on the Economics of Climate Change,” November 17, 2006, <http://www.econ.yale.edu/~nordhaus/homepage/SternReviewD2.pdf> (Accessed 12/20/06). Ironically, Nordhaus’ previous economic models are cited by the Stern Review.

² See my article “The Precautionary Principle,” in the Policy Guide for Washington State, p 69.

³ Stern Review, p. 33



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likely to generate higher morbidity and mortality rates among people suffering from malnutrition than among food-secure people.”³ Adding to this critique, the Stern Review offers the following footnote: “Malaria in Africa is particularly difficult to control because of the large numbers of mosquitoes spreading the disease, their effectiveness as [sic] transmitting the disease, and increasing drug resistance problems. Alternatives can be very effective, but are often much more expensive (WHO 2005).”⁴ This footnote is ironic for three reasons.

First, mosquitoes have become resistant because the most effective pesticide, DDT, was banned because of “health and environmental concerns surrounding DDT.”⁵ The World Health Organization (WHO) and many countries banned the use of DDT following the logic of the precautionary principle. Alternatives have, as the Stern Report indicates, been less effective. It is interesting to note that the Stern Review does not mention DDT anywhere as an alternative.

Second, the Review notes that effective alternatives are “often much more expensive.” The WHO, however, noted recently that DDT is “just as cost effective as other malaria prevention measures.”⁶ By removing the option of DDT, the Stern Review can increase the potential cost of climate change by removing a cost-effective solution.

Finally, it is ironic that the Stern Review cites WHO in 2005. In 2006, WHO announced in a press release that “WHO gives indoor use of DDT a clean bill of health for controlling malaria.”⁷ The WHO’s support for DDT now is unqualified. “We must take a position based on the science and the data,” said Dr. Arata Kochi, Director of WHO’s Global Malaria Programme. “One of the best tools we have against malaria is indoor residual house spraying. Of the dozen insecticides WHO has approved as safe for house spraying, the most effective is DDT.”⁸

It is unfortunate that WHO did not take a position based on science years ago, but instead made a decision based on “concern.” The Stern Review risks making that same mistake.

Costs

Applying the “precautionary principle” can have significant costs not only by constraining policymakers’ ability to make good decisions, but also by eliminating real solutions on the ground.

Applying the precautionary principle as the Stern Review has in the case of malaria, increases the potential cost of climate change. First, because the potential impact of climate-change caused malaria is unknown, the precautionary principle calls for strong measures to prevent the potential increase in malaria. Second, the precautionary principle also prevents an inexpensive and effective solution to that problem -- DDT. As a result, the precautionary principle increases the potential impact of malaria from climate change and also increases the cost of solving that problem. Given this double-barelled cost impact, the Stern Review argues that we should pay a heavy price today to prevent high costs tomorrow.

In fact, by adopting the precautionary principle, the Stern Review *must* reject DDT as a solution. Arguing for it would simply be an admission that decades of a DDT ban, based on precaution, had higher costs than benefits. Such an admission would undermine the foundation of their economic analysis. By placing some effective solutions out of bounds, adopting the precautionary principle may simply exacerbate the very problems it tries to address.

The case of malaria, climate change and DDT is emblematic of the challenges when trying to apply the precautionary principle. It distorts the decisionmaking process and can cause more harm than good.

⁴ Stern Review, p. 76

⁵ World Health Organization, “WHO gives indoor use of DDT a clean bill of health for controlling malaria,” September 15, 2006, <http://www.who.int/mediacentre/news/releases/2006/pr50/en/index.html> (Access 12/20/06)

⁶ World Health Organization, September 15, 2006

⁷ Ibid.

⁸ Ibid.