THE VALUE OF HUMAN LIFE IN GLOBAL WARMING IMPACTS

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ABSTRACT:

A recent article in Mitigation and Adaptation Strategies for Global Change by Fankhauser and Tol makes monetary estimates of potential global warming damages that assign higher value to each life lost in wealthy countries as opposed to poor ones. Regardless of how much sense such a procedure may make to GDP-oriented economists, it is morally unacceptable to most of the world and needlessly damages efforts to build support for any global warming mitigation and adaptation strategies that may be proposed. A better solution would be to use a money value of zero for human life losses and report separately the monetary and human life costs of warming (and benefits of mitigation).

KEYWORDS: VALUATION, ETHICS, STATISTICAL LIFE, ECONOMIC IMPACTS OF GLOBAL WARMING

No subject could be as fundamental, nor as controversial, as the value attributed to human life in calculating the impacts of global warming (and the benefits of mitigating it). Although prominent in the discussions of activist groups (e.g., Third World Resurgence, 1994), this subject has received little treatment in the professional literature. A perception that those who work professionally with climate mitigation and adaptation value the lives of rich people more than those of poor people is extremely damaging to the whole enterprise of mobilizing support for measures to contain global warming. The recent article in Mitigation and Adaptation Strategies for Global Change by Fankhauser and Tol (1997) requires comment in this regard.

Fankhauser and Tol (1997: 400) state that "the value people assign to a lower mortality risk may rise as per capita income grows." One is strongly reminded of the famous televised remark by General William Westmoreland, then U.S. military commander in Vietnam, that "they" [Vietnamese] don't feel pain on losing their loved ones like "we" [Americans] do. The notion that global warming impacts should be calculated assigning greater value to lives lost in rich countries has been rejected as morally unacceptable by many analysts, including this author (e.g. Fearnside, 1997).

The perception that global warming impact calculations contain a bias against the poor stems from a 1992 working paper by the first author of the recent article. In that calculation, lives lost in wealthy countries were counted at a value ten times that used for lives lost in the poorest countries (Fankhauser, 1992: 14). The values per life were derived from what people spend on insurance, a measure that ultimately rests on the ability of people to pay to avoid risks--that is, on how much money they have. Although Fankhauser (1992: note 22) appended a footnote explaining that poor people's lives are really just as valuable as rich people's lives, the numerical calculations followed through to the end using the 10:1 ratio.

The Intergovernmental Panel on Climate Change (IPCC) Working Group 3 (Mitigation and Adaptation) analysis reviews various means of valuating human lives (Pearce et al., 1996: 196-197). The bottom line of 1.5-2.0% loss of world Gross Domestic Product (GDP) (2-9% of GDP in developing countries) for total impacts of doubling the pre-industrial CO_2 concentration presented in the conclusions (Pearce et al., 1996: 218), however, is based on "available studies" that virtually all have wealth-based valuation of human life. Most emphasis is given to Fankhauser's (1995) estimate, which gives 11 times more weight to each life lost in the Organization for Economic Co-operation and Development (OECD) countries as compared to the non-OECD [i.e., poor] countries (see Pearce et al., 1996: 197). In the present

case (Fankhauser and Tol, 1997), which builds on the IPCC analysis, the numbers also reflect the "wealthist" bias of the original sources.

In addition, the "value adjustment" alluded to in the abstract (p. 385) is explained (p. 398) as a probable increase in intangible damages "because of the impact of per capita income on valuation." The implication is that future refinements of damage evaluation calculations will contain higher numbers for mortality costs because the per capita income of the people dying will be greater. The source of Fankhauser and Tol's optimism regarding the direction of change of the per capita income of the victims is not stated, and seems incongruous with the recent trends towards much larger numbers and percentages of poor people in the world. That the authors' predictions about "a new generation of improved estimates" (p. 399) stress increased value per death based on future increases in per capita income implies that each death among the rich will add more to the global warming damage total than each death among the poor.

It is important to make clear that, irrespective of what individual researchers may think about the matter, the value assigned to human life is a parameter that reflects ethical values that are not decided by researchers. The content of various international agreements, including the United Nations charter, as well as the teachings of the world's major religions, all point to equality as a universal guiding principle. This needs to be incorporated in an explicit and consistent manner into both numerical calculations and verbal discussions of the subject. The importance of equality is so basic that, rather than commit the injustice of differential valuation based on wealth, it would be better to use a value of zero for lost lives in monetary calculations, and simply state the monetary and human life costs separately.

Using Fankhauser's (1995) estimates for the impact of a jump to double the pre-industrial CO_2 concentration with the world (including its population size) as it is today, the result would be loss of US$ 221 billion (in 1990 prices) annually, exclusive of human life losses, plus loss of 138,000 lives per year (115,000 of which would be in non-OECD countries). The world's population can be expected to have grown substantially before pre-industrial CO_2 doubles in approximately 2070, assuming the atmosphere follows the IPCC Second Assessment Report's business-as-usual (IS92a) scenario (Schimel et al., 1996: 83). The real costs, especially in lost lives, would therefore be much higher than these already astronomical numbers suggest.

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