The Most Inconvenient Truth

Jack Bennett (*BioScience* 57: 101, doi:10.1641/B570219), commenting on Fred Powledge's article about the Millenium Assessment (MA; *BioScience* 56: 880–886), pointed out that "overpopulation is the problem." Powledge agreed in part (*BioScience* 57: 101, doi:10.1641/B570220), citing the MA affirmation that "increasing consumption per person, multiplied by a growing human population, are the root causes" of the growing strains placed on ecosystems. I would like to suggest that the hole is deeper still: "Increasing consumption per person" is the basis of our capitalist world system, whose primary objective is "the endless accumulation of capital" (Wallerstein 1999). The equation implicit in the MA affirmation is that ecological impact is a function of number and consumption, and both need to be addressed. However, when was the last time that a major national politician anywhere told voters that all of them would never be able to achieve the "American dream"? When Jimmy Carter tried to warn US voters that they might not be able to maintain their standard of dream (Carter 1977), he lost his reelection bid. This is the truly "inconvenient truth"!

Recently, van Vuuren and colleagues (2006) used the MA scenarios to predict global biodiversity losses during this century. These authors concluded that all four MA scenarios result in some "commitment to extinction" (7% to 24% of vascular plants) by 2050, with the greatest impacts in warm mixed forests, savannas, shrublands, tropical forests, and tropical woodlands. These preliminary losses will be due primarily to land-use changes, a term that means continuing economic and population growth, with or without the sustainable development that is part of some MA scenarios. After 2050, biodiversity extinctions are projected to accelerate in all scenarios, with climate change as the primary forcing factor.

The *Stern Review* (Stern 2006) affirms that climate change "is the greatest and widest-ranging market failure ever seen." The same affirmation can be made for biodiversity extinction, water resources degradation, oceanic pollution, etc., which suggests that the market system can't handle these "externalities" either, although the *Stern Review* suggests that it can handle carbon sequestration. Wallerstein (1999) affirms that the current world system of endless accumulation of capital cannot "internalize" all of these "externalities" without a drastic reduction in profits (not to say negative profits), because more than 90% of the world's population cannot afford to pay the real price for most of what they consume, even basic foodstuffs. This 90% includes large fractions of the US and European Union populations also.

Wallerstein (1999) suggests that the contradictions in the world system are so serious that either we rethink the system or systemic collapse will occur in our near future, as also suggested by Meadows and colleagues (2004). This is the same time frame that the Intergovernmental Panel on Climate Change report predicts climate change will be causing maximum environmental, social, and economic havoc (IPCC 2007). The externalities are becoming synergistic, and our response is still too timid. Like Jack Bennett, I cannot end on a positive note. Unless our world society starts serious discussions to change the entire economic system and associated social attitudes about population, our children and grandchildren are unlikely to thank us for their inheritance.

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