

# Global Warning

Why climate change is the most challenging environmental problem of all.

Setting aside largely unproductive squabbles over whether there is in fact global warming, the impact of human activity and our carbon footprint to it, confusions between “weather” and “climate,” and fixating on what happened in North America in 2017 – hurricanes, fires, floods and droughts – v. for the rest of the globe, it is worth pondering why this particular problem is fundamentally so difficult to solve.

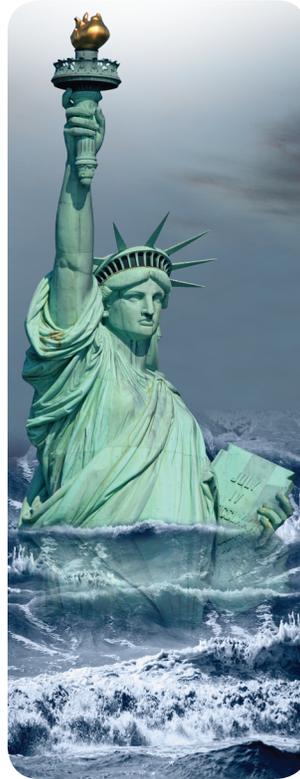
The “low-hanging fruit” of environmental issues to address are those that are largely of a local concern – waste management, traffic congestion, water usage, noise pollution – or specific in nature – depletion of a particular non-renewable resource, energy use and conservation, protection of a habitat or ecosystem. When there is a will, there is often a way.

For the most part, in these cases solutions lie in what economists might deem “getting the prices right.” If more recycling of a given item is advisable, then we can impose taxes on these disposables or provide subventions for competing products. We can raise gasoline taxes and charge expressway tolls by time of day; these are effective polices in decreasing automobile usage in general or peak-period driving in particular, and we can also encourage – and subsidize – public transportation, biking, and car pools. We can levy usage fees, rather than flat amounts, on water consumption or trash collection.

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But global warming is by definition the opposite of local and not specific in nature. First, there are 200 countries in play, each with potentially different preferences and constraints. This is, then, not comparable to, nor as easy as, tackling air pollution from a factory, abandoned automobiles, litter, or pest control. Voluntary agreements – and reliance on the “golden rule” – are much more difficult to implement the larger the scale and the greater the number of parties involved.

Second, each person – or country or region – has an incentive to hold out and not cooperate, letting the other fellow, firm, or political entity adopt measures that will reduce global warming but will also require arguably costly changes in one’s own life style. In economic terms, everyone wants to be the “free rider.” Or in game theory jargon, it presents a prisoner’s dilemma situation in which non-cooperation is optimal for individual



actors even though working together is in society’s best interest.

Third, property rights – the acknowledged or legal ownership and use – are not well defined or enforceable when thinking about the globe. The classic example is “the tragedy of the commons,” a situation in which a shared resource – a lake with fish, a pasture for grazing cattle – will be overused, and potentially depleted. Unlike one’s book collection or bank account, who owns the ocean or atmosphere is an entirely different matter.

Fourth, people and countries close to the equator will be harmed disproportionately by continued climate change, but other more northern locales – Canada, Russia – will actually be made better off if the earth heats up a bit. So there are likely to be winners as well as losers from global warming, making negotiation and compromise more difficult because of these distributional or equity aspects.

Fifth, there is the matter of stock v. flow. Our wealth – the net value of the house, investments, possessions – is a stock concept; what we earn in, say, a year – is a flow. For the U.S. and other

developed nations, the ratio of stock to flow is about five to one. In terms of the atmosphere, the current stock (or accumulation) of greenhouse gases is enormous compared with the annual carbon emissions, so to make more than a small dent in the problem would require a non-trivial change in our behaviors.

Finally, unlike with many personal or societal decisions in which costs and benefits associated with a particular course of action occur at approximately the same time – such as cutting down on fatty foods and sweets and shedding those unwanted pounds follows shortly, reducing global warming means sacrificing now for gains that will largely accrue decades down the road. In economic jargon, the present value of those future benefits is much lower than if they were to occur today. Thus, the current generation will pay the costs, while future generations, ones likely to be wealthier in general, reap the benefits. That is simply a hard sell economically and politically.

This last hurdle has led some economists to prioritize spending and cutting into political capital for more immediate concerns. While worldwide collective initiatives – the 1997 Kyoto Protocol, the 2016 Paris Agreement – are laudable, focusing more on important non-headline-grabbing projects such as reducing hunger, malnutrition and communicable diseases, providing better sanitation and access to clean water would improve the lot of our planet’s seven billion human inhabitants immensely. □