



Why Meeting the Global Warming Challenge is So Difficult

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The Intergovernmental Panel on Climate Change recently released its Fifth Assessment Report, presenting the latest accumulation of scientific evidence about the threat of global warming and calling for urgent actions to meet the threat. Earlier reports have pointed in the same directions, but the political, economic, and simple human obstacles to facing and coping with the dangers of global warming remain today as they were twenty-five years ago on the eve of the Intergovernmental Panel's First Assessment Report. People in the United States and across the globe are no more likely to reduce greenhouse gas emissions dramatically in 2014 or soon thereafter than they were in 1990. Modern political and economic systems are not geared to cope with this sort of challenge. And there is an enduring collective action problem: no single individual or organization, not even a few working together, can execute necessary solutions. Most must learn to act together, or the game is over – the causes and dire effects of increasing global warming simply will not be handled in time.

I have been studying the politics of environmental issues for over twenty years and the same problems rear their heads every year, at every conference, during every treaty negotiation, along every step of the way in implementation of shifts away from “business as usual.” Dramatic threats that play out slowly on such a grand scale are historically atypical, and there is no reason to believe that new technologies or increased efficiencies could fully supplant America's or the world's current use of fossil fuels within a generation or two. With no easy answers, no looming painless transition to equally powerful sources of non-carbon-based energy, people and organizations are very tempted to stick with familiar routines. Particular actors have no immediate reasons to spend the resources to further a protracted, difficult energy transition.

Political Obstacles

Leaving aside partisan polarization and the clash of ideologies, more fundamental realities stand in the way of devising effective governmental responses to the threat of global warming. The timelines of climate change and political careers are not synchronized. Members of the U.S. House of Representatives and of many state and local legislatures run for office or seek reelection every two years, while senators and members of upper houses along with chief executives usually have slightly longer terms of four to six years. The timelines for reelection – even the timelines of official careers that last ten years or more – are far from aligned with climate change processes that unfold over half a century or one to two hundred years. It takes a while for carbon dioxide released on the earth's surface to reach the upper atmosphere, and once there it persists for quite a long time before it breaks down.

Only in the last twenty-five years or so, for example, are we seeing the effects of the massive ramp-up in burning fossil fuels that occurred from the mid-19th century. Even if politicians back then had understood the science, how difficult would it have been for them to declare in 1870 or 1900 or 1920 that one hundred years from “now” a climactic catastrophe *might* loom? To ask the question is to answer it, and see the implications for our time. Given that the effects of many of our actions in 2014 will not be “visible” for a century, it is difficult even with a lot more scientific evidence to say with absolute certainty that the sky will fall – for our great grandchildren! Politicians and constituents alike have a difficult time with such long-delayed probabilities. It is a bit easier to address an immediate existential threat like nuclear annihilation, but for the most part, politicians promise and citizens focus on tangible goods, year by year.

Distant threats also imply a difficult cost-benefit calculation. For how many years should the current generation bear the cost of change for the future generation? Overcoming this dilemma requires a huge shift in political cultures focused on human happiness right now.

Economic Impediments

Modern economies rely almost entirely on fossil fuels. Currently, for example, some 95% of the energy used in transportation is based on fossil fuels. Even if we had already possessed the technologies needed to put alternative sources of energy into mass production and use – which we don't – how long would it take to make

the switch for millions upon millions of trains, planes, and automobiles? How many wind turbines, solar panels, hydro-electric platforms, and biomass generators can be produced and installed in a given year, and how many would be needed to replace current fossil fuel use (even with increased efficiencies from better insulation, better light bulbs, and lighter building materials)? Even if humanity already had the necessary new technologies, implementation would take decades. Besides, the questions I have just posed are based on constants, when in fact global and national economic models all presume steady economic growth. Growth in economic activity means increased energy costs – for individuals as well as companies and other organizations.

The Challenge of Concerted Action

The final impediment to action is what scholars call “the collective action problem”: why should I bear a cost if no one else will? Why should I bear a cost if everyone else will? Keeping this logic in mind helps explain the difference between individual benefits and collective failures. Even though the U.S. produces about 20% of all greenhouse gases spurring global warming, U.S. emissions are not rising as fast as elsewhere, and reducing U.S. emissions to zero overnight would still mean that the global problem would not be abated. So it is tempting to Americans to just stay the course. Nothing one actor does, even a large actor, solves the global climate change problem – and there is no rationale, on the face of it, to get any actor to think more about the group than about itself, and no incentive to long-term calculation. Even if we could wave a magic wand and get everyone to suspend short-term rational thinking, cutting back dramatically on the use of fossil fuels around the world would mean leaving the global pecking order right where it is – which many lagging nations and actors cannot accept.

Social science predictions are of course not immutable. It is still possible that a majority of people in most of the world's polities will challenge governments and corporations to act for the interests of our grandchildren. And perhaps the richest countries will decide to lead the world in cooperative behavior to meet the global warming threat. Such improbable scenarios are what it will take to overcome the obstacles created by the usual routines of politics and economic growth in the United States and beyond. And leadership will surely be needed to help people around the world see that short-term individual calculations can lead only to collective disaster.