

The Kyoto Placebo

Global warming is a stealth issue in U.S. foreign policy. Even as the effects of mounting carbon dioxide (CO₂) begin to make themselves felt, and huge multinationals such as General Electric and Shell announce their own plans of action, the U.S. government still acts as if there is no urgency to the task of cutting CO₂ emissions. The moment will shortly be upon us when a solution is needed, fast.

Advocates for action and the 157 ratifying countries (including the European Community) of the 1997 Protocol to the United Nations (UN) Framework Convention on Climate Change, negotiated in Kyoto, console themselves with the thought that at least the Kyoto Protocol has set in place the building blocks of a workable plan for combating the certainty of global warming, in the form of emission targets coupled with international emissions trading. It sets a timetable for capping and then gradually reducing greenhouse gas (GHG) emissions; the developed countries have agreed to roll back their overall emissions to at least 5% below 1990 levels in the 2008–2012 “commitment” period. These are laudable goals, to be sure, but the plan as outlined is anything but workable.

Some of the Protocol’s limitations are well known. Developing countries, for example, are currently exempt from CO₂ caps, and the Protocol, strongly opposed by the Bush administration, does not include the United States. Another weakness is one that the Protocol shares with most international environmental agreements: a lack of teeth. Subsequent negotiations have been unable to produce agreement on the penalties for failure to meet the plan’s goals. Worrisome as those liabilities are, though, a more serious problem has largely escaped notice.

The studiously ignored elephant in the room is the shaky and unproven trading system on which the Kyoto Protocol depends. It uses “flexible mechanisms” that allow participants to meet their targets by purchasing emission credits rather than making reductions themselves. Thus, those that have an easier time controlling their emissions may sell credits

to those experiencing greater difficulty or higher costs. The Clean Development Mechanism (CDM) facilitates trading with the developing world. In Joint Implementation, a “donor” country invests in pollution abatement measures in a “host” country in return for emission credits. In theory, this emissions market will allow participating countries to meet their CO₂ goals, with minimal disruption to their economies.

The trouble with the trading scheme is that it is based on a handful of unusual, and in some ways experimental, programs in the United States. Though heavily promoted by the World Bank, U.S.-style environmental trading has yet to be tested on a global scale and has never been successfully deployed on a national level in the developing world. Nor is it likely to be. Many countries do not have, and are unlikely to acquire, the oversight and enforcement mechanisms to make global (or domestic) emissions trading work.

Past is prologue

Any effort to control pollution demands a combination of reliable laws, vigilant monitoring of emissions, and consistent enforcement. The best indicator of the ability of most developing countries to provide these ingredients is how they have done in regulating their growing (and choking) locally produced pollution. It is not a record that inspires much hope.

The 1972 UN Conference on the Human Environment in Stockholm marked the beginning of a large global effort to build environmental regimes in countries around the world. In this first great wave of environmental law drafting, many countries patterned their requirements on the apparent growing success of the National Environmental Policy Act, which introduced environmental impact assessment in the United States. In the three decades since then, most countries can point to statutes and environmental agencies or ministries: the formal trappings of environmental protection. Most of these have proved to be frustrating paper exercises. In India, to take a typical example, laws and policies proliferated while air and water quality in the major cities

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declined, to the extent that Delhi gained the distinction of being the fourth most polluted city in the world.

Frustration with laws that didn't produce cleaner cities or sustainable forests led to a search for alternatives. The theory developed that polluters could be motivated to put environmental controls in place on the basis of economic self-interest if they were allowed to trade their pollution in an open market. Over the past 15-plus years, many international donor organizations have promoted to domestic environmental regulators the market-based policy instruments that in the United States are used to control emissions of sulfur dioxide (SO₂) and nitrogen oxides.

Compared with conventional methods of stemming pollution, an environmental credits market puts even higher demands on infrastructure and regulatory systems. In the United States, the market approach succeeds only because it is implemented in a way that is far from *laissez-faire*. Its basic regulatory demands—a steady decrease of emissions over time—are nonnegotiable. As plants that can cut emissions with relative ease sell their incremental pollution reductions to other plants that cannot do as well, transactions are regulated down to small details and vigorously enforced. The United States requires every plant in the domestic SO₂ trading system to install a special (and expensive) form of equipment called a Continuous Emissions Monitor, which sends real-time data via computer to Environmental Protection Agency (EPA) headquarters in Washington. Traders must use elaborate accounting measures and work in such complete transparency that transactions are tracked on the EPA Web site.

It should come as no surprise that emissions trading has rarely, if ever, taken hold in other countries to which it has been touted. Emissions are the currency of the environmental trading system, but many highly industrialized countries such as China, Russia, and many of the other countries of the former Soviet Bloc do not have adequate monitoring equipment to detect what pollutants, and in what amounts, particular factories and power plants are spewing into the atmosphere. They have weak environmental enforce-

ment systems and cannot really say whether particular plants comply with environmental requirements.

Now along comes the Kyoto Protocol, which seeks to apply a trading scheme to CO₂ emissions on a global scale. To accomplish this would require competence and skills both within countries and between them. Not only must countries institute the same combination of laws, supervision, and verification as they would for conventional ways of controlling pollution, their industries must also have an incentive to trade and the analytic tools to determine whether trading will bring them anything of value. This is brand-new territory for many governments and their regulated industries.

Even a seemingly straightforward task such as planting a forest to act as a CO₂ sink will strain the competencies of developing countries. For the forest to offset continuous CO₂ releases in some other part of the world, the trees will have to survive, thrive, and avoid being cut down for firewood or commercial use. Someone must track the forest's capacity to absorb CO₂ and, as with any activity to reduce CO₂, guarantee continuous reductions, day in and day out, over many years. This demands a sustained attention to environmental performance that is notably lacking in much of the world.

Yet the Kyoto Protocol assumes that critical countries such as India, China, and the nations of the former Soviet Bloc can generate verifiable credits into the system—that they can reliably reduce their production of CO₂ and sustain these actions over considerable periods of time. It seems unlikely that many countries will hold up their end of the bargain.

Law and disorder

Any country can pass environmental laws. The hard part is to animate the laws through compliance and enforcement—a challenge that requires, if not a robust legal system, at least a working and reliable one. Law sets the rules, establishes processes for enforcement, and provides recourse for parties who believe they have been cheated or denied what they bargained for.

For many of the countries that are necessary participants in a trading system, law in general (not only environmental law) has a troubled history. In the countries of the former Soviet Bloc, law effectively was what suited the needs of powerful leaders. In China, a huge and growing emitter of GHGs, historical experience with written laws to manage complex relationships is very shallow. Commercial relationships were built for centuries on personal assessments of the trustworthiness of a trading partner, not on contract law.

Survey the world, and few countries can demonstrate dependable legal systems and an independent judiciary

ready to stand behind contracts such as environmental trading agreements. In India, which does boast a working legal system, the independent and respected supreme court has occasionally stepped in to force government agencies and individuals to implement environmental laws and policies that would otherwise have languished. Even so, the lower courts are notoriously slow and unreliable and are dogged by allegations of corruption.

And even where there is a will to prosecute tough cases against cheaters, facts are not so easy to find in societies without strong traditions of transparency and information access. Bringing a case is even harder when one party to this transaction is a state-owned enterprise that is clearly more powerful than the regulatory body that supposedly supervises it, or when the ultimate beneficiary of the sale of emission credits is the party in power. When the scale of the regulatory effort is global, no world court exists to litigate the trustworthiness of the pollution reductions that become emission credits.

If trading GHGs were a routine commercial transaction, the normal solution would be to punish the wrongdoer or compensate the loser. This is not a normal transaction. Unchecked releases of GHGs impose their injury on the public, but the public is rarely party to the deal, except through the watchful eyes of government regulators. Faked GHG reductions do a kind of damage that cannot be fixed with conventional remedies such as fines or jail time.

Environmental trading programs, whether their purpose is to reduce domestic pollution or to manage global GHGs, present special logistical and conceptual problems that go well beyond the normal challenges of conventional environmental regulation. In normal regulation, someone (a lawmaker or regulator) places a specific numerical limit on the amount of pollution that a plant can emit. Someone else is designated to monitor whether the goal is being met. Even this elementary monitoring requires a combination of equipment, vigilance, and enforcement that that few countries can provide.

Trading takes these requirements to a new level of difficulty. Not only will legal limits vary widely (it is entirely possible, in fact, that every factory might legally emit at a different level from its peers, creating a logistical nightmare for enforcement officials), but what is being traded is an invisible, intangible commodity: the right to emit a given amount of CO₂.

Trading so abstract a commodity demands a highly sophisticated understanding of property rights and of the

role of law in supporting those rights. Issues of ownership—even basic comprehension of what it means to be an owner—and of contract rights and obligations are paramount. If a society manifests confusion about the ownership of certain kinds of tangibles, as is often the case in countries emerging from state socialism, imagine how much more difficult it is to sort out and document the ownership of future rights to gas emissions from a factory. And that is just when the factory is acting in good faith.

What about the cheaters? Keeping companies honest is hard enough in a robust legal and regulatory environment, as Enron's sham energy trades and WorldCom's balance-sheet fraud amply demonstrated. In a weak legal system, the potential for emissions trading fraud is enormous.

Finally, there is the issue of motivation to participate. The theory behind trading is that factories, power plants, and anyone else that generates CO₂ will be eager and capable partners in deals to buy and sell emissions. Nothing seems more obvious to those of us raised in the Western economies.

But the theory rests on three faulty assumptions. The first is that industry wants to save on compliance costs. Where pollution laws have been nothing more than paper, industry knows it need not worry much about environmental compliance; these things can be worked out. Plants that aren't being forced to comply with environmental requirements may not see the point in cutting compliance costs through elaborate trading regimes. It does not buy them anything more than they already have, which is a free ride to pollute. No one has yet demonstrated why industry or regulators are likely to take GHG reductions any more seriously or be more effective in regulating them.

The second assumption is equally intuitive and unfortunately wrong: that the opportunity to trade will reveal a natural instinct to make a profit and to do so in the most efficient way possible. Even questioning this seems preposterous in the frame of reference we bring from the Western economies. But in much of the world, efficiency and profit are secondary to production or full employment goals, and failing companies continue to be kept afloat by soft budgets: essentially government bail-outs.

As reluctant as we may be to acknowledge this, counting profit and loss may be a challenge to managers of enterprises in some parts of the world. In the Western economies, accounting tools let managers know whether they have turned a profit. But for plant managers in the Soviet Bloc, accounting was a way to understand whether they met production goals set by party bosses. Nikita Khrushchev's economic reforms introduced the concept of "profit" as a planned category, calculated as a fixed percentage of cost. Old habits

die hard, and numerous observers have noted that fundamental conditions remain pretty much the same, even though the economy and enterprises have been formally privatized.

The third weak assumption behind emissions trading is that even if plants around the world are not themselves motivated to embrace clean technologies, they will accept them when offered in the context of Kyoto's flexible mechanisms. Certainly, any factory in any part of the world can recognize that someone offering free equipment is offering something of value. The tricky part is whether the manager of that plant has any incentive to turn the equipment on and pay its running costs, to keep it running night and day, day in and day out, and to clean it from time to time. Normally, none of this happens without a watchful eye in the form of disinterested enforcement.

In short, no trading system can operate independently of the prevailing culture. This is equally true in Europe, where market incentives are foiled by deeply rooted traditions of government intervention, by the relationship between government and industry, and by each nation's unique political heritage. And it is certainly true in any country of the developing world, as a recent report by India's Center for Science and Environment (CSE) confirms. CSE looked at two active CDM projects and concluded that it is impossible to check whether the transactions meet Kyoto standards because their terms are not transparent; that the projects may have been approved by Indian authorities on the basis of the prestige of the consultant that validated the projects rather than the projects' merits; and that certain conditions of the transactions are yet to be met, despite being specified in the project design document. CSE questioned whether the process or the results contributed to genuine sustainable development or the purposes of GHG reduction.

Much rides on the Kyoto Protocol's frail shoulders. The disruptions caused by melting icecaps and flooding may prove more severe than those produced by war, and longer lasting. Experts predict mass exoduses as entire populations seek higher ground. Shifting water currents might change our food supply and how we lead our lives. Conflict is inevitable.

The flexible mechanisms of the Kyoto Protocol and the promise of technology offer intriguing but ultimately uncon-

vincing answers to this looming problem. Trading and technology will play a role in taming climate change, but they are only a piece of the solution, not the entire answer. A strong dose of realism is past due. Even granting that cap and trade can be a model, attention must shift to the cap and how to make it work.

GHG emissions cannot be wrestled into control without the same hard work that must be applied to control any other pollution threat. The first step must be a genuine commitment, country by country, starting with the United States, to capping and then reducing GHG emissions. Experience indicates that this can happen only by instituting independent regulation and enforcement. What this will mean as a practical matter may differ from country to country, but overall the goal must be to identify what can be done to build the developing world's ability to ensure more reliable compliance, monitoring, and enforcement.

Alternatively, we could accept the view of some experts that we are already at the point of no return. The economist Thomas Schelling, among others, has suggested that the best option now is to build the survival and adaptation capacity of countries that will be disproportionately hit, so that low-lying or otherwise vulnerable nations will not have to pay an excessive price for the failure of the world to grapple with the challenge of climate change.

But any of these measures, whether preventive or palliative, requires an unusual steadiness of purpose, political will, and a longer view than we seem capable of mustering. Like the frog that feels the gradually warming water only when it is too hot to survive, human beings are apparently lulled by the gradually warming atmosphere into the false hope that we have many years ahead to deal with the problem. This illusion has some parallels with terrorism, where warnings were available for years to anyone who wanted to listen, but it took September 11 to move the issues to the front of the queue. Even though the consequences of ignoring global warming could be more chilling than parcel bombs detonated in the Western capitals, we are putting our eggs into a theoretical basket constructed from vain hopes that problems like this will essentially take care of themselves.

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