

CopenhagensInconvenient Truth

How to Salvage the Climate Conference

Michael A. Levi

This December, diplomats from nearly 200 countries will gather in Copenhagen to negotiate a successor to the 1997 Kyoto Protocol, which for the first time bound wealthy countries to specific cuts in greenhouse gas emissions. Most of these emissions come from burning fossil fuels—coal, oil, and natural gas—for energy, from deforestation, and from the agricultural sector. They must be cut deeply in the coming decades if the world is to control the risks of dangerous climate change.

Most of those devoted to slashing the world's greenhouse gas emissions have placed enormous weight on the Copenhagen conference. Speaking earlier this year about the conference, UN Secretary-General Ban Ki-moon was emphatic: "We must harness the necessary political will to seal the deal on an ambitious new climate agreement in December here in Copenhagen.... If we get it wrong we face catastrophic damage to people, to the planet."

Hopes are higher than ever for a breakthrough climate deal. For the past eight years, many argued that developing nations reluctant to commit to a new global

climate-change deal—particularly China and India—were simply hiding behind the United States, whose enthusiastic engagement was all that was needed for a breakthrough. Now the long-awaited shift in U.S. policy has arrived. The Obama administration is taking ambitious steps to limit carbon dioxide emissions at home, and Congress is considering important cap-and-trade and clean-energy legislation. The road to a global treaty that contains the climate problem now appears to be clear.

But it is not so simple. The odds of signing a comprehensive treaty in December are vanishingly small. And even reaching such a deal the following year would be an extraordinary challenge, given the domestic political constraints in Washington and in other capitals that make such an agreement difficult to negotiate and ratify. The many government officials and activists seeking to solve the climate problem therefore need to fundamentally rethink their strategy and expectations for the Copenhagen conference.

Many U.S. lawmakers want absolute near-term emissions caps from China and India, but those countries will not sign

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up for anything of the sort for at least another decade. And before they consider a deal of any kind, Chinese and Indian negotiators are deriding that developed countries commit to cutting their greenhouse gas emissions by over 40 percent from 1990 levels by 2020, but none of the world's wealthiest countries will even come close to meeting this goal. Meanwhile, China, together with other developing countries, is also asking the wealthy nations to commit as much as one percent of their collective GDP—more than \$300 billion annually—to a fund that would help the rest of the world reduce its emissions and adapt to climate change. But Western politicians will not be willing to send anything near this amount of money to their economic competitors in order to secure a deal.

Some of these disagreements stem from negotiating bluster, but there is little sign that anyone is ready to make big compromises. And the high demands of any comprehensive global agreement are only half the problem. Even a blockbuster deal in which every country signed up to binding emissions caps would come nowhere close to guaranteeing success, since the world has few useful options for enforcing commitments to slash emissions short of punitive trade sanctions or similarly unpalatable penalties. The core of the global effort to cut emissions will not come from a single global treaty; it will have to be built from the bottom up—through ambitious national policies and creative international cooperation focused on specific opportunities to cut emissions.

The aim of a deal at Copenhagen should be to reinforce developed countries' emissions cuts and link developing countries' actions on climate change to objectives in

other areas—such as economic growth, security, and air quality—that leaders of those countries already care about. If, instead, negotiators focus on fighting against various governments' most entrenched positions, they may leave the world with nothing at all.

MOVING TARGETS

The goal of climate diplomacy should be a safe planet rather than a treaty for its own sake. There is an emerging consensus among negotiators that the world's governments should aim to cut emissions in half, ideally from 1990 levels, by 2050. This basic goal, endorsed by the G-8 (the group of highly industrialized states) at its 2008 summit, should frame U.S. calculations,

This target needs to be divvied up fairly between wealthy and developing nations. Even if rich countries managed to reduce their emissions to zero and all other nations held theirs steady, the world would still miss its 2050 target. With great effort, today's rich countries might be able to cut their emissions to 80 percent of 1990 levels by midcentury—a goal endorsed by the G-8 at its 2009 summit—but even that will be very hard. Developing countries, in some cases with Western financial or technological support, will need to make up the substantial difference,

To many governments, midcentury goals may seem far away, a perception that encourages them to delay cutting emissions and place their bets instead on the development of breakthrough technologies, which many claim will slash emissions at little cost. Others insist that the developed world can move first and wait a decade or two for developing countries to follow. Yet given the glacial pace at which global energy systems

change, 2050 might as well be tomorrow. Most of the buildings, power plants, and industrial facilities built in the next decade will probably still be around several decades hence. Cutting emissions in 2050 thus requires changing global infrastructure investments today. Moreover, most innovation in energy technology will not happen in an inventor's garage. Most of the necessary innovation and cost cutting will come only as engineers and firms deploy clean-energy systems on a large scale and learn real-world lessons about which technologies and business models work. It will not be possible to make cheap emissions cuts in 2050 unless the world makes large-scale changes in investment patterns now. These decisions have clear near-term economic, and hence political, implications.

The European Union, Japan, and the United States have each proposed cutting their emissions by about 15 percent from 2005 levels by 2020, although each defines its objectives differently. These objectives are unlikely to change significantly, and although some are weaker than they should be, they provide a realistic starting point for action. Yet similar goals for the world's other big emitters—Brazil, China, India, Indonesia, and Russia—would be unreasonable. China, India, and Indonesia have per capita GDPs that are less than a tenth that of the United States; Brazil and Russia are richer but still lag far behind the United States. As these countries develop and bring people out of poverty, their emissions will naturally rise—and they should not be penalized for economic growth.

That said, failure to get these countries' emissions under control would be disastrous—and a missed opportunity. China and India are making massive infrastructure investments that could be

steered in a cleaner direction. Russia is more developed, but with one of the world's most inefficient economies, it, too, has room to cut emissions. Insufficient action in China, India, and Russia would also make it impossible to sustain domestic political support for U.S. efforts.

The goal for these three countries should be to deliver cuts in emissions intensity—emissions per unit of GDP—roughly equivalent to those the United States and Europe hope to achieve, aided where appropriate by Western financial and technological help. Under such a plan, emissions growth in China, India, and Russia would slow sharply. And if their economies develop along the lines that many project, their emissions would actually start to drop around 2025—a staggering turnaround that would help put the world on a safer environmental path.

By focusing on intensity rather than total emissions, the United States would assuage worries—especially in China—that climate diplomacy is a Western plot to constrain developing countries' growth. The current Chinese five-year plan, together with a range of technical analyses, provides some hope that this might be a realistic bargain. Chinese efforts have aimed to cut energy intensity by 20 percent between 2006 and 2010, although Beijing will probably not meet its goal; mandates for greater use of renewable energy bring these ambitions into the same range as the U.S. and European goals for the future.

Recent McKinsey & Company studies have identified cost-effective measures, primarily in power generation and consumption, transportation, and heavy industry, that could make similar cuts possible in both China and India through 2020, and the level of inefficiency in

Russia suggests that it could also pursue such cuts.

The other top-ranking developing-country emitters, Brazil and Indonesia, are different because their emissions come mostly from deforestation, which is less closely tied to economic growth. (Deforestation releases carbon dioxide stored in vegetation and in the soil.) Brazil has offered to cut its rate of deforestation by 70 percent in the next ten years, provided it receives enough compensation, and Indonesia has suggested that it could actually halt deforestation with the right help, yet neither has identified exactly how much assistance it will need from the world's richer countries. Crafting the right package of support will take time, but the world should accept these goals as ambitious and focus on finding ways to realize them.

OUTWITHTHE OLD

Americans accustomed to thinking about climate diplomacy within the framework of the Kyoto Protocol may assume that the obvious next step is to translate reduction goals into emissions caps, put them in a treaty, and establish a system for global carbon trading. But this would be problematic for three reasons.

First, negotiators from developing countries would insist on much less stringent caps than whatever they thought they could meet. Higher caps would give them a cushion by maximizing the odds of their remaining in compliance even if their domestic policies for cutting emissions failed. Likewise, these loose caps would protect them if their economies shifted in unexpected ways that increased their emissions, as happened in China in the early part of this decade and could happen in India in

the future. Inflated targets could also let developing countries collect large sums of money in exchange for little effort, if they were allowed to sell surplus emissions permits in a global cap-and-trade system. But potentially enormous financial flows from wealthy countries to poorer ones would make the system politically toxic in the West.

Second, even if a developing country met its agreed emissions cap, other nations would, in the near term, have little way of verifying this, since most developing countries, including China and India, lack the capacity to robustly monitor their entire economies' emissions. This would be doubly problematic if developing countries were allowed to sell excess emissions permits as part of a global cap-and-trade system, since errors in calculating emissions could lead to a situation in which wealthier countries transferred massive amounts of money to poorer ones that appeared to have cut their emissions more deeply than they actually had.

And finally, even if the problems of excessively high caps and poor verification could be solved, simple caps would have little value on their own. Canada is a case in point. Ottawa will soon exceed its Kyoto limit by about 30 percent, yet it will face no penalty for doing so because the Kyoto parties never agreed on any meaningful punishments. The United States and others have essentially no way to hold countries such as China and India to emissions caps short of using punitive trade sanctions or other blunt instruments that would make a mess of broader U.S. foreign policy. Obsessing narrowly in Copenhagen over legally binding near-term caps for developing countries is therefore a waste of time.

The solution to all three problems is to focus on specific policies and measures that would control emissions in the biggest developing countries and on providing assistance and incentives to increase the odds that those efforts will succeed. Such bottom-up initiatives could include, among other things, requiring efficient technology in heavy industry, subsidizing renewable energy, investing in clean-coal technology, improving the monitoring and enforcement of building codes, and implementing economic development plans that provide alternatives to deforestation.

These measures would not be any less binding than emissions caps in practice. Moreover, if designed properly—and if they add up to deep enough cuts in each country's emissions—they would be far more likely to work. Actual emissions cuts happen because of policies, not promises, and the simple fact that governments could directly control these policies would increase the likelihood of success. Monitoring compliance would also be easier, since policies, unlike emissions targets, must be codified in law and reflected in specific changes on the ground. Developing countries could focus much of their near-term efforts on specific measures that dovetail with other objectives—such as reducing oil imports or cutting air pollution—making them more attractive and hence more likely to be implemented. Moreover, they could be linked to incentives from the outside, such as subsidized sales of efficient U.S. technology, which could be more effective and politically palatable than the simple but blunt financial incentives of a global cap-and-trade system.

GREEN CHINA, GREENER BRAZIL

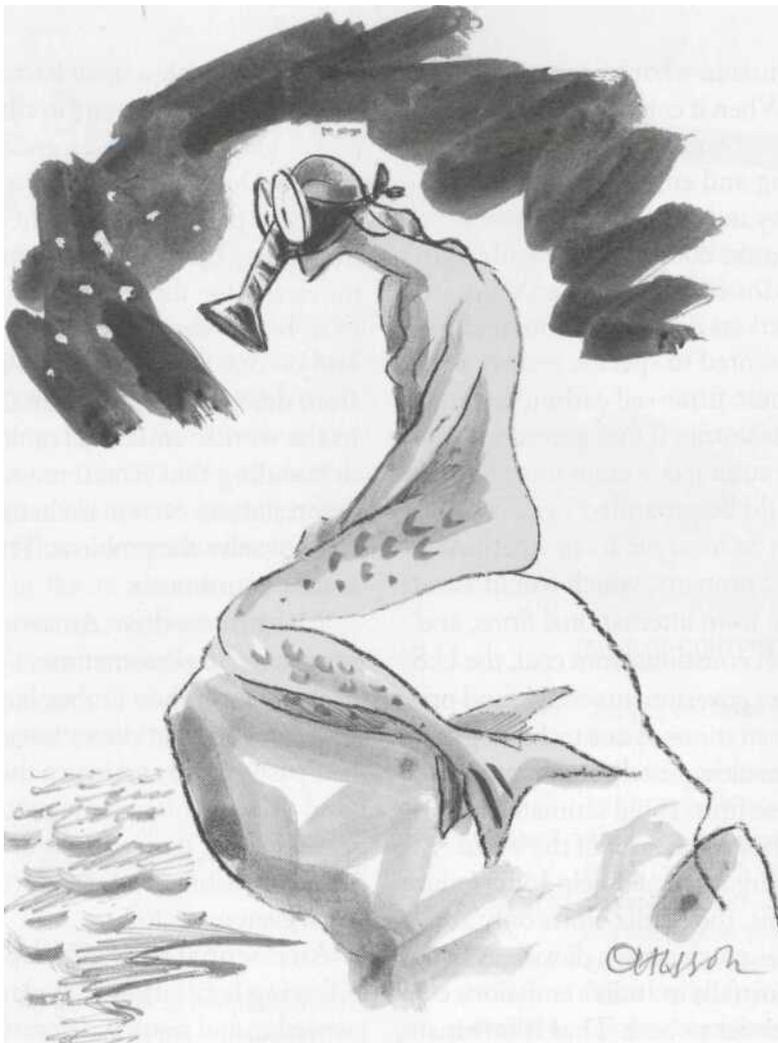
Developing economies may be technically able to make the sorts of near-term emis-

sions cuts the world needs, but they are not going to pursue them effectively unless they get the right assistance from the world's wealthier nations. The United States, the EU, and Japan need to understand why countries make the energy policy decisions they do, see how those choices can be aligned with the emissions cuts the world needs, and then ask what they can do to help make sure those policies are actually implemented.

China, the world's largest emitter, provides a useful case study. Beijing is already taking significant steps to cut emissions—much more than most Americans appreciate. It has ambitious fuel-economy standards for its cars and trucks, fairly advanced codes for energy efficiency in its buildings, significant investments by its power companies in ultra-efficient conventional coal power and in wind power generation, and economic incentives for investments in renewable energy and for cutting industrial emissions. Unfortunately, these measures are not enough to deliver the emissions cuts the world needs over the coming decade, and the Chinese central government often lacks the ability to enforce the rules that are already on the books.

Still, Beijing's current policies and its long-term goals offer some hope for progress. China's dependence on cheap coal and oil may make the goal of rapid economic growth clash with that of controlling emissions, but it is not always a zero-sum game. For example, more efficient power plants, cars, and industrial facilities can help boost economic growth by saving money on resource costs over time.

In other cases, the potential economic payoff may come in the form of new technology that can be marketed to the world. Wind power, for example, is more expensive



than coal. However, it may eventually give China an economic advantage if Beijing's policies increase demand for domestically produced wind turbines and help build an industry that can then export clean-energy technologies to other countries.

For Beijing, securing energy supplies, like economic growth, is a double-edged sword. It makes reliance on dirty domestic coal attractive, yet at the same time it spurs investment in renewable sources of energy, which will help China diversify its supplies as it reduces its emissions. It also explains why Chinese leaders find efforts such as

fuel-economy standards, which directly target oil use—and hence imports—more attractive than broad emissions caps.

Shifting China onto a cleaner path will require Beijing to identify specific ways in which it can make deep emissions-intensity cuts. That could include better enforcement of building codes, mandating the use of efficient technology in factories, new subsidies for renewable energy, or a provisional commitment to use carbon capture and sequestration (ccs) technology on new coal plants by 2020. The United States and other wealthy countries should then offer

to help China in whatever ways they usefully can. When it comes to building codes, Washington could help develop Beijing's monitoring and enforcement capacity; to aid heavy industry, international development banks could help provide loan financing for overhauls when Chinese capital markets do not; carbon-trading systems tailored to specific sectors could help Chinese firms sell carbon credits to wealthier countries if they exceed aggressive targets for cutting emissions intensity; wind power could be expanded by encouraging China to improve its protection of intellectual property, which would attract investment from international firms; and to help slash emissions from coal, the U.S. and Chinese governments could fund private demonstrations of CCS technology and share the resulting intellectual property so that Chinese firms could ultimately compete with those in the rest of the world.

Other bargains could help India reduce its emissions, too. India emits only about 30 percent as much carbon dioxide as China does, so shortfalls in India's emissions cuts would be easier to bear. That is fortunate, because India may ultimately present the greater challenge.

India is much poorer than China, and New Delhi lacks Beijing's massive capital reserves. This means that wealthy countries will have to provide more financial assistance to help India develop in a cleaner way. U.S.-Indian technological cooperation, rather than helping clean up heavy industry, could focus on India's vibrant information technology sector to build smart electric grids, which cut energy demand. Cooperation on clean coal, meanwhile, could focus on tailoring power plants to India's low-quality coal reserves. Over a third of India's citizens lack access to electricity,

in contrast to only a small fraction in China. As a result, investment in distributed power generation holds greater appeal in New Delhi.

Brazil presents a different sort of challenge altogether. Its energy system is one of the cleanest in the world, primarily because of its heavy reliance on hydroelectric power and biomass energy, but its emissions from deforestation vault it above India in the world's emissions rankings. Simply demanding that Brazil massively curb deforestation, even in exchange for money, will not solve the problem. The details will matter enormously.

Many forces drive Amazonian deforestation in Brazil: sometimes forests are cut for the value of their timber, but more often cattle ranchers cut down trees to expand their pastureland and hence their revenues. Land titles are often ambiguous, driving people to clear territory in order to claim it. After exhausting it, they resort to cutting down even more forests.

An essential step will be passing and enforcing legislation that clarifies land ownership and restricts deforestation. Outside help might be useful in designing regulations or acquiring the equipment to monitor violations. Although such legal changes will slow deforestation, they will not solve the problem; there is still too great an economic incentive for people to continue clearing forests and for the government to continue allowing it.

The solution will require the Brazilian government—with the help of financial assistance from wealthier countries—to pay ranchers, loggers, and others to stop cutting down trees. If those forests are later destroyed, however, that money will have gone to waste. Therefore, before any scheme to avoid deforestation can be

effectively funded, Brazil will need to create a plan that provides alternative opportunities for those who are today cutting down forests. That might mean, for example, helping ranchers use land more efficiently, so that they could expand their incomes without encroaching on the forests. Similar steps would also help address the "leakage" problem, which occurs when efforts to protect forests in one place simply shift deforestation elsewhere. In contrast, if a broader scheme helps increase beef production on unforested lands, for example, no new incentives for deforestation will be created. This is not a particularly elegant solution to global warming, but it is the sort of policy that might actually work.

The emissions problem, of course, goes beyond the biggest emitters, and the United States and other wealthy countries should not ignore other opportunities for cheap emissions cuts. Some of these, especially in the least developed countries, might come from carbon-trading schemes or climate funds that pay for individual projects or programs that cut emissions. Others will arise when development agencies make fighting climate change a priority when disbursing foreign assistance. The U.S. Agency for International Development, for example, should ensure that its efforts to improve agricultural productivity in the developing world are linked to steps to make agriculture more climate-friendly.

An approach to dealing with climate change based on hundreds, if not thousands, of individual policies and measures may be messy, but the complexity of the problem requires it. Many who pine for a simpler solution are either ignoring the real challenges of international action or romanticizing the multilateral regimes that have dealt with other problems on this

scale. But the genesis of other major international regimes, such as those dealing with nuclear weapons and global trade, illustrate that large global problems rarely have simple solutions,

REGIME CHANGE

Signed by its first participants in 1968, the Nuclear Nonproliferation Treaty (NPT) appears to be a model of simplicity: states with nuclear weapons agreed to eventually disarm, those without nuclear weapons pledged not to acquire them, and all states maintained a right to pursue civilian nuclear energy for peaceful purposes. But the actual nuclear nonproliferation regime is far more complex. Countless bilateral and regional relationships, each of which requires careful management, are used to shape states' security decisions. The Nuclear Suppliers Group, a loose multilateral cartel, tries to control sales of nuclear technology. The core institution of the regime, the International Atomic Energy Agency, which inspects civilian nuclear programs, actually predates the NPT. And as proliferation has transformed from a problem that governments could directly control into one involving private and nonstate actors, the regime has had to add various new appendages, such as the Nunn-Lugar Cooperative Threat Reduction Program and the informal Proliferation Security Initiative.

Likewise, global trade agreements have been built piece by piece. The first round of the General Agreement on Tariffs and Trade, in 1947, involved only 22 countries; the global regime has since grown gradually, alongside a range of bilateral and regional trade accords. These trade agreements have often been secured through broader deals—that extend beyond economic

issues and have sometimes been supported by "aid for trade" arrangements that build countries' basic capacities so that they can export goods. Moreover, trade agreements are far from simple. The agreements that created the World Trade Organization in 1995 total 550 pages, and the documents outlining each member state's commitments extend many pages beyond that. (China's accession protocol, for example, runs to 103 pages not including the extensive schedules detailing tariff and quota obligations on everything from hams to styrofoam.)

As with the regimes for nonproliferation and trade, an effective climate regime will require attention to technical detail and depend on contributions from a host of bilateral relationships and multilateral institutions. The United States will need to make protecting the climate an integral part of its bilateral dealings, particularly with the world's biggest emitters, just as it once made arms control an essential part of its Cold War relationships and today includes trade as a routine part of bilateral policy discussions. And since progress will require including climate concerns alongside those regarding economic development and energy security, the issue will necessarily become an increasingly important part of the work that institutions such as the World Bank and the International Energy Agency do. That does not mean Washington should put climate change above all else—indeed, the priorities of promoting national security and economic growth will often supersede the issue of climate change, just as nuclear nonproliferation and trade have sometimes been overshadowed by other objectives.

An appropriate forum will be needed to realize concrete emissions-cutting policies in the major emitting countries. The Bush administration's Major Economies Meeting

on Energy Security and Climate Change brought together a small group of the biggest emitters for the first time, but these talks focused strictly on facilitating the UN negotiations. Its successor, the Obama administration's Major Economies Forum on Energy and Climate, has wisely aimed to expand the discussions' terrain to technological cooperation, too. After Copenhagen, this forum should undergo a third transformation and become one in which countries regularly pledge to coordinate and review a range of actions to cut emissions.

Washington's goal in Copenhagen should be an agreement that strengthens the foundation for emissions-cutting actions elsewhere—unilaterally and through international cooperation—just as the foundational deals of the nonproliferation and trade regimes continue to support a host of institutions and efforts. If, instead, Copenhagen is seen as a major failure, it will sap the momentum of those fighting climate change and expose the United States to excessive blame. Realistic expectations and the right negotiating strategy are essential,

CONFIDENCE BUILDING

The negotiations leading up to Copenhagen have proceeded along five tracks: mitigation, adaptation, finance, technology, and creating a vision for long-term cooperative action. Mitigation focuses on near-term commitments to cutting emissions; adaptation, on efforts to deal with unavoidable climate change; finance, on schemes to pay for emissions cuts; technology, on frameworks for advancing and distributing low-carbon technology; and creating a long-term vision, on developing a simple framework that ties all this together. The United States needs something serious

to offer on each front. It should also have a strong proposal for a scheme to measure, report, and verify countries' actions, another integral part of the negotiations.

Adaptation offers hope for progress because it can be separated, at least partially, from thornier elements of the negotiations. As part of an agreement, the United States should offer to devote several billion dollars annually over the next decade to help the least developed countries adapt to climate change. This would represent a relatively small increase in total U.S. development aid—which totaled \$26 billion in 2008—and could be targeted at areas that could yield multiple payoffs beyond mitigating climate change, such as improved health services (which will be needed since climate change will alter disease patterns). Some small part of that aid could flow through a UN-managed fund, but to be effective, most of it would need to move through bilateral channels and other well-established multilateral organizations in which U.S. policymakers already enjoy leverage and that have demonstrated their ability to spend money responsibly and efficiently. Such an offer would win Washington friends in many poorer developing countries, which could help build pressure on China and other major emitters to negotiate constructively.

Agreement on a long-term vision is the next-easiest target. The United States should press countries to agree that the world must cut its overall emissions in half by 2050, affirm that today's developed countries will need to cut their emissions by 80 percent by then to reach that goal, and recognize that the balance of the emissions cuts will need to come from the developing world, aided in part by outside support. The last element will be

the toughest because developing countries have been loath to accept any obligations without specific commitments of financial and technical assistance—indeed, the world's major economies tried but failed to agree on this formula at the G-8 meeting in July. It is nevertheless important to set a formal long-term goal, as it would provide a solid benchmark against which the success of targeted policies and measures could be judged.

Perhaps the biggest prize that might realistically be won in Copenhagen (or soon after) is an agreement on measurement, reporting, and verification (MRV).

These may seem like technicalities, but they are actually central to the success of any climate-change measures. One of the greatest barriers to unilateral emissions cuts, particularly in the United States, is the suspicion that other countries are not going to do their part. But if a country, such as India, does take steps to deeply reduce its emissions, whether through a UN deal or on its own, having both a process and an institution responsible for verifying those cuts will be essential. Such verification will help make it more politically feasible to undertake similar emissions-cutting actions elsewhere, including in the United States,

A solid MRV scheme would also help link the actions of developing countries to support from wealthier nations. Any assistance from rich countries for emissions-cutting activities in countries such as India will need to be contingent on the actual implementation of these projects. Conversely, the implementation of those emissions cuts will depend on recipients' confidence that the support promised to them will actually be delivered. By providing transparency for both sides, an

MRV scheme would appeal to both developing countries in need of assistance and the wealthier nations supplying it.

Reaching an effective agreement on MRV will be difficult. The U.S. government, which tends to resist any form of international scrutiny, would have to submit itself to the same verification measures as other countries. Moreover, if a deal on MRV is seen as a substitute for a broader international agreement on climate change, many major countries will balk. But a properly framed MRV scheme, combined with a registry of pledges on emissions-cutting activities and agreement on a long-term vision, could be the core of a useful near-term international agreement. An ambitious MRV deal cannot focus simply on emissions caps and carbon trading, as Kyoto did, because then the world would judge whether countries were pulling their weight by those criteria alone. A much more expansive scheme, one that measures and verifies all commitments—including targeted policies and assistance through non-UN channels—would encourage states to invest in a much wider range of mitigation and adaptation efforts.

THE COHAROUND

An ambitious and legally binding deal on the other fronts—mitigation, finance, and technology—would be invaluable because it would increase confidence on all sides, which would, in turn, encourage further emissions-reduction efforts. But such a deal will be much harder to achieve and may be too far a reach right now. Negotiators should instead keep their expectations in check, aim for political agreement at Copenhagen on the form that a legal treaty on these fronts would ultimately take, and launch negotiations to fill in the

difficult details later. If the major governments do eventually reach a comprehensive legal agreement, it may not happen for several years. This delay should not stop the Copenhagen delegates from striking intermediate deals and implementing their own national policies to put the world on the path to a safer climate,

When it comes to mitigation, the United States should put forward provisional 2020 and 2030 targets for its own emissions cuts as a concrete offer in these discussions. (The 2030 targets it is currently contemplating are aggressive and could blunt criticism that its 2020 targets are too weak.) Washington should also be clear that it will not sign a deal codifying any targets until it receives sufficient commitments to major emissions-cutting initiatives, such as schemes for avoiding deforestation or boosting low-carbon energy, from the biggest developing countries. Anything significantly more from the United States or less from Brazil, China, and India will make ratification in the U.S. Senate impossible.

Gaining concessions from developing countries' governments and support from European allies will require Washington to make credible financial offers as well. Such financial support will likely need to rise over time to more than \$10 billion each year—a large number, but only about three percent of what Washington spends on imported oil. The United States should push the biggest and wealthiest developing-country emitters to agree that they will need to take significant actions on their own before they can expect financial help from Washington. This sort of "matching" approach, which makes clear that everyone is investing effort, is the only one that has a chance of being accepted politically in the United States.

Michael A. Levi

Furthermore, the U.S. government should argue that the Clean Development Mechanism—a program established under the Kyoto Protocol that currently funds voluntary emissions-cutting projects through carbon trading—must be streamlined, focused on the least developed countries, and expanded to include deforestation. Washington should also make sure that other financial support for emissions cuts, even if channeled bilaterally or through institutions such as the World Bank, has the same legitimacy in the eyes of world governments as money delivered through carbon trading or UN funds—something that China, India, and others have resisted.

When it comes to technology, the United States is likely to invest far more in research, development, and demonstration projects than most other countries. But several developing countries will press for a deal in which rich countries share intellectual property related to clean technologies. This matters most for Brazil, China, and India, for whom the chance to become clean-technology leaders is a critical incentive for action. An agreement on intellectual property is more likely to be reached outside the UN negotiations than within them because of the idiosyncrasies involved in dealing with each country. The United States should assure poorer countries that intellectual-property rights will not drive up the cost of disseminating technology to the point where it is prohibitive. It should also offer to share a substantial part of whatever intellectual property its public investments in technology create in exchange for an agreement that other intellectual property will be protected.

The best Copenhagen can do on mitigation, finance, and technology is to establish a longer-term bargaining process in which

the goal is getting the major developing countries to agree to specific emissions-, cutting measures and getting wealthy countries to agree to provide assistance to poorer ones while also cutting their own emissions. This "Copenhagen Round" would be much more like an extended trade negotiation than like a typical environmental-treaty process. It may take many years before this results in a meaningful, legally binding agreement—and even that outcome is far from assured.

Indeed, many forget that the last climate deal took over eight years to finish. The world agreed on a lengthy legal text in Kyoto in 1997, but the content was still sketchy, it was not until 2001 that the final details were hammered out in Marrakech, and it took a series of side deals to bring the treaty into force in 2005. Serious pre-Copenhagen negotiations are less than a year old, and ambitions are much higher this time around. Eight years is too long to wait for action—but a bit of patience would be wise.

This makes it even more important for the United States to ensure that deals on adaptation, a long-term vision, and verification are not held hostage to what may be a very long stalemate. Washington should aim to have a deal on those fronts outlined in principle at Copenhagen and ironed out over the next year, even as work continues on the other parts of the agenda. Most important, the United States should make sure that aggressive bottom-up efforts to actually start cutting emissions, such as a U.S. cap-and-trade system and a sophisticated Brazilian effort to curb deforestation, do not wait for agreement on a comprehensive global deal. That is where the real action is, and there is no time to waste.