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Adaptation, Economics, and Justice

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Adaptation, Economics, and Justice

Robert R. M. Verchick

International efforts to combat the threat of global warming correctly emphasize greenhouse gas reduction. But for developing countries, whose communities could be wiped out by one sustained drought or misplaced hurricane, the long road to abatement is not enough. Developing countries must begin *adapting* to climate change—now. The poorest and most vulnerable nations, however, lack resources to erect the dams, levees, insurance markets, and health clinics that adaptation requires. Northern industrialized countries' efforts to aid southern countries' adaptation have been meager at best. Although the North recognizes a utilitarian argument for engaging the developing world in emissions reductions, it lacks a compelling rationale for helping the South survive the climate threats we cannot stop. We are like Phoebe in the television show *Friends*, who, when asked by a neighbor to help move furniture, replies, "I wish I could, but I don't want to."

But just wishing we could help is not enough. This chapter argues that although we in the North are not yet serious about helping our neighbors to the South, we should be. Our focus on narrow, short-range market interests has distracted us from an opportunity to act justly and thereby engage the developing world in reducing greenhouse gases (GHGs) for the benefit of all. Global warming is, to quote the *Stern Review*, "the biggest market failure in the world." But the problem goes far beyond market failure. Global warming is also about inequality—inequality based on wealth, race, geographic location, and geopolitical power. Understanding this inequality is the key to understanding the moral and practical justifications for an aggressive effort to aid developing countries in adaptation efforts and helps us to imagine what a successful worldwide adaptation program might look like.

This chapter has four parts. The first part briefly revisits predictions about the effects of climate change, with an emphasis on global inequality

and the need for adaptive measures. The second part shows why the United Nations' and the United States' efforts to enhance global adaptation efforts have been insufficient. Their initiatives fall short, in large part, because they are based on a neoliberal model of problem solving, which blinds global leaders to higher moral obligations and to more practical strategies for international cooperation. Part III calls for a stronger moral foundation for adaptation aid, which market economics cannot provide. Part IV offers a moral justification for adaptation aid. Drawing from international relations literature on fairness and trust, this section finds both philosophical and practical reasons for supporting a moral view beyond what the market perspective alone can justify. Based on that discussion, the section then begins to speculate about what a "serious" global adaptation initiative might look like.

Before moving on, I should define two terms, *mitigation* and *adaptation*. *Mitigation* refers to actions taken either to reduce GHG emissions or to enhance the sequestration of such gases in "carbon sinks." Mitigation includes energy conservation, use of renewable energy, forest enhancement, and carbon capture and storage.

Adaptation refers to the responses a society takes to better cope with or adjust to climate change impacts. Such responses include building a seawall, restoring a barrier island, or improving the regional insurance system. Some initiatives, like better zoning near shore, address dangers of "exposure." Others, like malaria prevention and micro-lending programs, seek to reduce vulnerability and enhance societal resilience. As one example of the term's breadth, the U.N. Development Programme catalogs global adaptation programs under headings like "Agriculture/Food security," "Public Health," "Disaster Risk Management," and "Coastal Zone Management."

According to the Intergovernmental Panel on Climate Change (IPCC), adaptation by itself will never be enough to cope with all climate change effects, particularly the loss of biodiversity and the disintegration of ice sheets and glaciers.³ The effectiveness of any given strategy is highly particularized and will depend on geographic risk, the social capital of the community involved, and political and financial constraints. No one knows what "full" adaptation would even cost. Estimating the cost of an effective levee system—as residents of New Orleans are now finding—is hard enough. How do you predict the cost of agricultural reform in drought-prone Africa? Or the relocation of millions of people in Bangladesh? In one of the few estimates available, the World Bank speculates that it would cost \$10 billion to \$40 billion annually for the world to

substantially adapt to climate change. When you consider that the cost of restoring Louisiana's coast, alone, might cost \$1 billion annually over the next thirty years, this estimate seems low.

I. Mapping Vulnerability

In chapter 1, Christopher Schroeder and Robert L. Glicksman show that climate change threatens the basic elements of human welfare across the globe.⁵ But the predicted exposure of societies to such damage is not uniform. Countries in tropical areas are more likely to be hit harder. Tropical nations already endure climatic disturbances like cyclones, monsoons, and the El Niño and El Niña cycles. There is persuasive evidence that global warming could extend or intensify these events.6 Agricultural productivity in the tropics has always presented special geographic challenges, a fact that has contributed to overall slower economic growth. Such challenges include extreme weather, poorer soils, the presence of pests, and higher crop respiration rates. Climate change will augment these problems. In the blunt words of the Stern Review: "Climate change will have a disproportionately damaging impact on developing countries due in part at least, to their location in low latitudes, the amount and variability of rainfall they receive, and the fact that they are already too hot."7

As the 2004 Asian tsunami demonstrated, people in the developing world are least able to cope with sudden disasters when they do occur because of substandard infrastructure, poor emergency response, and insufficient medical services. Indeed, deaths from natural disaster are generally linked to a nation's economic welfare and its degree of income inequality. Developing countries will also show greater sensitivity to climate change because of their economic reliance on agriculture and fragile ecosystems. In sub-Saharan Africa, for instance, 64 percent of people are employed in the rural farming sector. The percentage is nearly the same in South Asia. People in developing countries also rely more heavily on subsistence goods and services drawn from the environment, such as fish, vegetables, firewood, fiber, and drinking water.

In developing countries, climate victims will be mainly people of color. A large share will be infants and children, elderly people, and the disabled.¹¹ This means more work for women and girls, who generally care for the children, the elderly, and the infirm.¹² Women and girls, who in many cultures also grow the food and collect the water, will also find these chores consuming more of their time, leaving less time for education

and vocational training.¹³ By pushing girls out of school, climate change is expected to increase female illiteracy.¹⁴

Wealthy countries, like the United States, Japan, and the original members of the European Union, will also face serious climate-related problems, including sea-level rise and more intense droughts and storms. In the United States, state governments and private research centers have begun documenting a troubling array of climate-induced harms expected in California, the Pacific Northwest, and the Northeast. As Hurricane Katrina demonstrated in 2005, the effects of climate disaster, even in a rich country, will most seriously harm a society's most vulnerable—the children, the elderly, the poor, and the infirm.¹⁵

II. Current Efforts to Address Adaptation

A. International Efforts

The U.N. Framework Convention on Climate Change (UNFCCC) acknowledged the need for adaptation strategies from the very beginning, although it was short on details. Article IV, for instance, requires parties to "cooperate in preparing for adaptation to the impacts of climate change." Article III urges parties to expand development assistance to foster "sustainable economic growth and development in . . . developing country Parties, thus enabling them better to address the problems of climate change." I?

Convention parties have since created four programs to promote adaptation. Two specifically target the poorest countries. The Least Developed Countries Fund (LDC Fund) assists needy countries in preparing National Adaptation Programmes of Action (NAPAs), reports that identify actions and priorities important to adaptation efforts. A second fund, the Adaptation Fund, will provide more significant funding for projects in poor countries. This program, which comes online in 2010, is partially funded by the sales of certified emissions reduction units to richer countries. Two other programs are nominally open to all member nations. One, the Strategic Priority on Adaptation (SPA) fund, supports projects that enhance vulnerable ecosystems and produce "global environmental benefits." The other, the Special Climate Change Fund (SCC Fund) supports adaptation, disaster-risk management, coastal zone planning, and other longrange activities.

The programs are nothing if not ecumenical. There is something for nations with globally important eco-assets and for those scraping by on almost nothing. Some, like the LDC Fund and the SCC Fund, focus on

institutional and developmental needs; others, like the SPA fund, want to see change in the physical landscape. All suggest that need and geographic diversity are important. But however broad in scope, the UNFCCC's funding programs are, at this point at least, just a drop in a very big bucket. All programs require the recipient nation to share costs, sometimes on a fifty–fifty basis, as a means of demonstrating local commitment. And while the U.N. optimistically puts the total cost of climate adaptation at "tens of billions of dollars," the sum of all UNFCCC adaptation funds now pledged tops out at a few hundred million dollars.¹⁹

These arrangements will be eagerly debated as the international community negotiates a successor agreement to the Kyoto Protocol, which expires in 2012. As this book goes to press, the UNFCCC is hoping to lay the groundwork for such an agreement at the fifteenth Conference of the Parties, to be held in Copenhagen, Denmark, in December 2009. At that meeting, and those that follow, the question of binding emissions reductions for large developing countries will take center stage. And as nations like India and China have made clear, those commitments will be tied directly to the willingness of richer nations to help poorer ones implement green technology and adapt to a more volatile climate.

B. National and Local Efforts

In the United States, federal adaptation policy makes for short discussion. The American Bar Association's 2007 book on American climate change policy—which is nearly 800 pages long—covers adaptation in two pages, with room for photos.²⁰ The climate change legislation proposed in 2009, while historic, deals mainly with mitigation (by way of a cap-and-trade system) and is relatively vague on adaptation. On the international side, U.S. behavior has obstructed multinational adaptation efforts more than it has helped, although this may change as President Barack Obama's climate agenda advances. The U.S. decision to quit Kyoto under the second Bush administration pulled at an already sensitive rift between North and South that to this day threatens cooperation on issues of mitigation and adaptation. To its credit, the United States does contribute to UNFCCC adaptation funds. Over the last decade, it has pledged hundreds of millions of dollars to the Global Environmental Facility (GEF), which in addition to other development initiatives, manages the UNFCCC's LDC and SPC funds.21

Yet the United States has been criticized recently for trying to push the GEF away from a need-based allocation system in favor of a "performance-based" system, which would reward countries judged to be political, economic, and environmental reformers, while withholding aid from those that are not.²²At the 2004 Conference of the Parties in Buenos Aires—the so-called Adaptation COP—the United States fiercely resisted an adaptation plan offered by Argentina, though the plan eventually passed. Also in Buenos Aires, the United States raised hackles when it supported Saudi Arabia's plea that adaptation funds be made available to oil-producing nations whose economies would be harmed by green technologies.²³ That proposal temporarily derailed negotiations at the Adaptation COP, although such aid has since been incorporated into the Special Climate Change Fund.

On the domestic side, U.S. adaptation efforts lag significantly behind those of other countries. Unlike Great Britain, for instance, whose ambitious Climate Impacts Program establishes new construction guidelines and aids communities in future planning, the U.S. federal government has no national adaptation policy and no apparent plans to develop one. Some federal agencies have begun to factor climate change into their projects. One of the most dramatic examples concerns the rebuilding of New Orleans after Hurricane Katrina. Having acknowledged serious flaws in the construction and design of the federal levee system, the U.S. Army Corps of Engineers is now combining stricter design standards with state-of-the-art computer models that aim to project the effects of global warming on storm surge, storm frequency, and sea-level rise. The Corps's long-term efforts to restore Louisiana's endangered coastal wetlands (some of the most productive in the world) will similarly include ongoing assessments of climate change effects.

States and cities are also stepping up to the plate. In 1988, Maine began incorporating projections of sea-level rise due to climate change into some of its coastal building codes.²⁴ City building codes in New Orleans, informed by federal flood maps, now also incorporate the effects of climate change. California, a domestic leader in climate change efforts, has launched a major initiative to study the state's vulnerability to drier weather, shrinking aquifers, and rising tides.²⁵ States like Washington and New York have begun similar efforts. Yet, such efforts still trail behind those of many European cities and Canadian provinces.²⁶

III. Adaptation and Economics

There are several reasons for the North's slow response to global adaptation needs and for the United States' nearly defiant neglect. Automakers, Big Oil, and the coal industry have all helped subdue public calls for

more aggressive climate policy nationally and internationally. President George W. Bush's distrust of climate science and sometimes abrasive style also stymied progress on this topic. (President Obama has promised a more diplomatic and science-friendly approach.)

But another barrier to adaptation policy concerns free-market orthodoxy, or what David M. Driesen in the introduction to this volume calls "the neoliberal model." Recall some of the characteristics that Driesen associates with neoliberalism. It is an approach that favors market-based solutions and distrusts government-based ones. It measures desirable outcomes in terms of "objective" indicators of combined social wealth, without formal concern for less measurable values like distributional fairness or restorative justice. In addition, we might add that neoliberalism promotes an ethic—some would say "virtue"—of self-sufficiency and the stoic acceptance of unfortunate consequences. That is, individuals are expected to assume the risk of participating in the market and to adapt to changing landscapes.

Market fundamentalism of this kind sets a poor foundation for adaptation policy. There are simply too many diverse places facing too much risk with too little cash to solve this problem through "self-sufficiency" and "market forces" alone. The UNFCCC's four adaptation programs seem, at first glance, to move beyond the neoliberal approach. The LDC and Adaptation Funds, for instance, target "need" rather than "economic value." And all four funds seek geographic and other forms of diversity that could not be justified with market values alone. But elsewhere market thinking is creeping back in, as in the UNFCCC's matching funds requirements and U.S. efforts to introduce performance-based allocations into the GEF fund. In addition, some economists are urging policy-makers to approach adaptation in terms of more generalized aid, as a way of maximizing social welfare and avoiding government intrusion. These influences could weaken future adaptation programs.

A. Matching Funds

Since neoliberalism relies on an individualist model, its stance toward adaptation tends to rely as heavily as possible on "self-reliance." This notion leads to demands that nations receiving development aid agree to pay a portion of the costs. The idea is not unreasonable. Matching creates an incentive for the host country to implement the program efficiently and responsibly. In particular, holding the beneficiary at least partly responsible for cost may reduce wasteful pork-barrel politics (rent-seeking) and locals' overreliance on foreign bailouts (moral hazard).

But a system too dependent on matching grants distorts aid distribution and can significantly slow it down. It can distort aid distribution by making it impossible for the societies most vulnerable to climate change to get aid, since they cannot pay a significant share of the costs. It can significantly slow down aid because of the political difficulty of negotiating cost-sharing arrangements. Some domestic examples make the point. After Hurricane Andrew devastated the Florida coast in 1992, the White House immediately waived the traditional 10 percent matching funds requirement for federal assistance out of recognition that the recovery would otherwise be delayed. (The requirement was again waived for New York City following the events of 9/11.) But after Hurricane Katrina and subsequent levee failures flooded 80 percent of New Orleans, the White House enforced the requirement for more than a year before finally giving in, a delay that significantly slowed rebuilding efforts in the city.

At the very least, matching funds must be set at affordable levels, which take into account a country's available resources. It may be that the affordable level is not enough to combat rent-seeking or moral hazard. If that is so, other means must be devised to address those issues, without endangering the poor. A second point is that matching funds make the most sense where their use will lead recipients to make better choices. Requiring matching funds for projects that donors have already chosen is less justifiable. This issue will resurface in the next section when I discuss fairness and a recent controversy over who should pay for the South's mandatory NAPA reports.

B. Performance-Based Allocations

The United States' attempt to steer SCC and LDC funds toward "performance-based" allocations is generally viewed by both supporters and critics as a way to promote more liberalized trade. In fact, the United States' GEF proposal closely resembles the second Bush administration's Millennium Challenge Account, which was developed around the same time. This "performance-based" fund provides development aid on the basis of national indicators intended to measure a country's commitment to good government, citizen welfare, and "economic freedom," the last being an umbrella phrase intended to imply open markets, sparse regulation, and other neoliberal values.

The tendency to use it to promote economic orthodoxy can be damaging. Development programs associated with the World Bank and International Monetary Fund, for instance, are often criticized for their tendency to favor development projects that increase the production and exports

of needy countries but degrade essential cultural and environmental resources. Performance-based assistance programs, like the Millennium Challenge Account or the U.S. proposal for GEF allocation, raise questions about a donor county's commitment to helping people in immediate need. Such programs also drive a wedge between countries favored with aid and those that are not. As one German representative to the GEF explained in his opposition to the U.S. position, "To implement a GEF funded project according to *national* indicators would be to undermine the unique global character of the GEF. To forsake a project just because the host country is a bad economic or political performer could affect the whole [of] mankind in a negative manner."²⁸

C. Competing Strategies

In addition to the UNFCCC funds, there is a growing discussion about the use of general development programs as a means of enhancing adaptive capacity. Recall that poor people, because they lack basics like medical care and safe shelter, are much more likely to suffer from environmental disaster than rich people. Economists Gary Yohe and Richard Tol estimate that "for every percent of economic growth [in a country] vulnerability falls by a percent."29 For this reason, many have begun to follow the lead of economist and Nobel laureate Douglass North, who contends that general and targeted development aid to poor countries should be the highest priority in international adaptation policy.³⁰ The Copenhagen Consensus Center, an economics-based think tank in which North participates, goes even further. In a highly publicized report, the group suggested that liberalizing trade was more important than responding to global warming at all, whether through mitigation or adaptation.³¹ Such prescriptions are appealing to a market view because they minimize governmental involvement (which neoliberals distrust) and purport to maximize social utility.

But as international leaders ponder the next stage of adaptation policy, it would be a mistake to substitute either aid or trade for a comprehensive adaptation strategy. Sure, prosperity is good. But general advancement does not necessarily serve the same constituency as more tailored adaptation programs. The millions of farmers in flood-prone deltas or African dustbowls need lifesaving infrastructure *now*, in the form of dikes, reservoirs, insurance networks, and other projects. Development aid, nearly by design, has a longer time line. In a generation, such aid might deliver farmers from the delta to cities with working sewage systems and better jobs. But meanwhile the next monsoon season is already on its way. As

for more liberalized trade, it is true that pulling down trade barriers will lead to larger aggregate growth. But the benefits and costs of globalization have always been unevenly distributed. Even with today's relatively free markets, just 6 percent of foreign investment goes to Africa, while the 47 poorest countries receive only 2 percent.³²

From a market-based perspective, these distributional differences do not matter so much. Because neoliberalism focuses on combined social welfare, an aggregate rise in wealth is a success regardless of which rice farmers are helped in what poor country. But to those with a more holistic view, distribution matters very much. If one of the goals of adaptation policy is to help people in the South whose lives are endangered by energy policies of the North, the proposals of aid and trade fall short. In addition to these arguments, there is one last objection to using general aid as a substitute for a more ambitious adaptation policy. The idea dangerously confuses the concepts of charity and justice, a topic considered more fully in the next section.

IV. Adaptation and Justice

Over two centuries ago, early feminist Mary Wollstonecraft roared, "it is justice, not charity, that is wanting in the world!"33 While everyone recognizes that the world's response to climate change must effectively target adaptation (along with mitigation), the world has tended to view adaptation funding as a charity, rather than a requirement of justice. Wealthy nations—looking through a neoliberal lens—do not see global adaptation as an urgent need or at least do not see it as benefiting them in any important economic way, and so tend to treat it like an inefficient charity. Thus they underfund it. Viewing adaptation funding as a moral obligation grounded in justice principles would lead to a more robust response to the global adaptation needs. We need a broader sense of national purpose anchored in a theory of global justice. The move from "charity" to "justice" requires a reframing of the issues. Charity is what a Samaritan does when she feels sorry for you and wants to help. Justice is what a society owes to you because of your membership in a shared community.

Justice is important for both philosophical and practical reasons. In many philosophical traditions, the point of identifying shared ethical values is to bring people and societies together. This end is inherently good, as it fulfills an innate human need to connect to others, to care for others, and to be cared for. On the practical side, justice promotes altru-

ism, reciprocity, and cooperation. All of these things promote community and enable long-term survival. To ground an adaptation strategy in something more durable than market preference will require a commitment to a model of justice that appeals both to philosophical principles and realistic concerns. In the remainder of this chapter, I hope to start a discussion about an appropriate model of justice to guide adaptation policy.

A. Justice for Philosophers

Adaptation strategy should begin with the moral commitment that society owes to the least advantaged. In political theory the idea is perhaps best expressed as a version of distributive justice, made famous by philosopher John Rawls in his pathbreaking A Theory of Justice. Seeking a standard of wealth distribution among members of a single society, Rawls imagined how members would define their interests at the formation of a hypothetical "social contract." He concluded that members of this new society, if shorn of information about their eventual "class position or social status," would choose distributional principles that maximize the position of the persons least well off.

Years later, in *The Law of Peoples*, Rawls modified the theory to apply it to distributions of wealth among societies. There, Rawls declined to extend his earlier rule in full, but instead argued that privileged societies have the duty to aid their poorer neighbors at least up to the point that their neighbors can "manage their own affairs reasonably and rationally and eventually . . . become members of the Society of well-ordered Peoples." Once the target is reached, "further assistance is not required, even though the now well-ordered society may still be relatively poor." Significantly, redistributions of wealth may be unequal (the poorest get more). For Rawls, the principles of allocation are based in a theory of international community.

Rawls's views are concerned with a strand of theory called distributional justice. But it is also possible to justify aid to the world's poor in terms of compensatory justice, which addresses how those inflicting harm should compensate those that they injure. Under this theory, LDCs would argue that their need for adaptation aid arises from historical injury visited on them by their more industrialized neighbors.

There is truth in this charge. Recent empirical studies using materials-flow analysis show that natural capital in southern countries is sacrificed to feed consumption in the North. Pointing to such analyses, economists J. Timmons Roberts and Bradley Parks argue that "from both an import

and export perspective . . . core economies are draining ecological capacity from extractive regions by importing resource-intensive products and have shifted their environmental burdens to the South through the export of waste." As but one example, they note that the original fifteen EU nations import, in *physical terms*, more than *four times* what they export; but that the *money value* of what they export is *four times* that of what they import. This unequal exchange of natural capital, what some call "environmental imperialism," is fueling enormous resentment among developing countries and has become a significant stumbling block in climate negotiations.

B. Justice for Realists

When put into practice, a sound theory of justice leads to practical improvements in individual and political life. Justice helps define human goals and adds muscle to flabby social policies. In times of crisis—a war, natural disaster, or social upheaval—a commitment to justice can unite those with shared interests and stiffen resolve. Today the world faces a series of existential red alerts, from global warming, to nuclear proliferation, to Islamist jihad. The challenges are too broad for any regional bloc or even hemisphere to address. They require cooperation among nations in the North and South.

There are many ways to encourage poor countries to join industrialized countries in efforts to address important global problems. The use of "soft" power through the practice of justice is one important element. Sometimes powerful countries enlist other countries into global initiatives through moral suasion and "leading by example." Since World War II, such strategies were significant to human rights initiatives, including the official rejection of torture by most thoughtful nations; the importance of setting a just example explains the alarm expressed by many Americans upon hearing reports of abusive CIA interrogation tactics under the second Bush administration. Nations also attempt to encourage cooperation among nations through trade and aid programs. The strategy can be successful if targeted correctly. One could imagine encouraging nations like Indonesia or Brazil to participate in mitigation efforts in return for, say, adaptation aid. The philosopher will object that aid, if already justly deserved, should not be conditioned on future acts. But such carrot-dangling is nearly inevitable in real-world politics. It may be defended on pragmatic grounds if such policies produce a significant net benefit for receiving countries and if local governments and civil society are included in the development of those policies.

A sometimes overlooked benefit of practicing justice is the fostering of community through trust. Today the bonds of trust between rich and poor nations are badly frayed. A significant reason is that the South believes the North has built its flashy culture and plus-sized economy on the backs of equatorial peoples. Half a millennium ago, the North enriched itself by stealing the South's labor and natural resources. Today it has stolen the climate and shows comparatively little concern for tropical and subtropical nations left to resist rising tides and sun-baked fields.

Thus, in the second televised presidential debate in 2000, then-candidate George W. Bush had this to say about what he would do in response to climate change: "I'll tell you one thing I'm not going to do is I'm not going to let the United States carry the burden of cleaning up the world's air, like the Kyoto treaty would have done. China and India were exempted from that treaty. I think we need to be more even-handed." Year's earlier, Bush's father, George H. W. Bush, had caused considerable stir at the Rio Earth Summit when, as president, he expressed a similar skepticism for targets and timetables by insisting that "the American lifestyle is not open to negotiation." ³⁹

These statements reveal important points about fairness and community, respectively. George W. Bush's concern for an "even-handed" approach suggests a theory of justice based on straight egalitarianism, without regard to a nation's resources or culpability. His father's refusal to consider any concession that might threaten "the American lifestyle" suggests that fairness has its limits. Specifically, the elder President Bush appeared to suggest that these needier nations lay *outside* the community to which the United States owes much responsibility. He thus appeared to question the very existence of a Rawlsian social contract among nations.

But the elder Bush, a veteran of World War II, surely understood the necessity of a social contract among today's nation-states. Even neoliberals, riding on the comet's tail of globalization, promote the role of institutional togetherness through the World Trade Organization, the World Bank, the European Union, and other entities. Even President George W. Bush, typically seen as a go-it-alone president, speaks persuasively for a world committed to global security, where countries fight terrorism not only for their own national security but for the national security of others.

Climate change is likewise a serious threat to global security that requires extraordinary cooperation among nations. Everyone agrees that stabilizing GHG emissions cannot happen without help from the largest developing countries. Even if the North were capable of completely adapting to climate change (a goal it could never approach), it would still be wise to attend to the South. As a U.N. development report noted earlier this decade, "In the global village, someone else's poverty very soon becomes one's own problem: of lack of markets for one's products, illegal immigration, pollution, contagious disease, insecurity, fanaticism, terrorism."

It is tempting to hope that enlightened self-interest will push poor countries to enlist in the struggle to mitigate GHGs and join regional adaptation efforts with neighboring countries. But the scenario is unlikely due to lack of trust. A less powerful actor can rationally justify a refusal to join a mutually beneficial campaign if it perceives its partners as untrustworthy. In this case, the South's lack of confidence rests in a deep-seated resentment over what the South views as injustices perpetrated by the North. These perceived wrongs include experience with colonialism, inequalities in resource exchange, and climate injustice.

To illustrate how neoliberal values can hamper trust and cooperation, Roberts and Parks point to the 2004 COP-10 meeting in Buenos Aires in which the issue of "matching funds" for required national adaptation plans threw the climate negotiations into a tailspin. After noting that adaptation plans for the forty-eight LDCs could have all been fully financed for \$11 million—which was *less* than the amount already on hand for such purposes—the authors express disbelief at some Western countries insistence on matching funds. The money at stake, they write,

was a pittance compared with the cost of having developing countries believe that the developed countries are indifferent to their circumstances. Issues like this could provide opportunities to build social capital that underpins long-term cooperation, but in the hands of short-sighted negotiators following hard-line mandates . . . events like this can just as easily drive a downward spiral of distrust. 41

The upshot, of course, is that LDCs are still required to contribute to adaptation plans, beyond their reasonable ability to pay, simply to indicate "buy in." Situations like these suggest the need for a kind of targeted magnanimity, in which wealthier nations set the foundation for long-term cooperation by viewing their poorer neighbors, not as Hobbesian brutes, but as members of a moral community in which *no one* succeeds without mutual trust. We in the developed world can no longer afford to sweat the small stuff.

In short, anyone thinking that climate risk, alone, will lead poor, populous countries to negotiate GHG reductions had better think again. "No matter how important a nation is ecologically or how vulnerable it

currently is," write Roberts and Parks, "other factors tend to lead to adoption of environmental treaties." Those "other factors," which include democratic structures and meaningful foreign assistance, challenge the current U.S. approach, which underfunds initiatives and rhetorically appeals to "even-handedness." Overtures to the developing world may someday have strings attached. But a successful approach must also acknowledge the moral dimension of the global warming debate. This will mean moving away from some market-based ideas like "the beneficiary pays" or "most bang for the buck," and toward agreements favoring aid to "the least advantaged" or the "least culpable."

C. A Marshall Plan for the South?

Climate change now demands an unprecedented political and economic commitment. It suggests the need for a kind of twenty-first-century Marshall Plan. Economist Thomas Schelling has thoughtfully argued that global reductions of GHG emissions require strategies reminiscent of the United States' successful effort to revive war-torn Europe. ⁴³ But perhaps the more compelling application is to *adaptation* rather than mitigation.

As in the era following World War II, we face a group of nations that have an aching need for technical and economic assistance. Their plight is not the result of war but of another destructive force that, though less direct, threatens to erode the economic, political, and cultural stability of billions of people. The moral imperative is there. To stand by while a generation of innocents slips into chaos cannot be justified. Similarly, the rehabilitation and protection of this vulnerable community is essential for the long-term political and economic stability of the rest of the world.

What would a "serious" adaptation program, patterned after the Marshall Plan, look like? For starters it would be bold and well funded. The Marshall Plan, begun in 1947 and bankrolled by the United States, eventually distributed more than \$12 billion in technical and economic assistance to nearly twenty European countries. 44 A serious adaptation plan must over the course of a decade be expected to distribute tens of billions of dollars to perhaps fifty of the neediest countries. Like the Marshall Plan, a serious adaptation plan would go for the deep pockets. In 1947, the United States correctly understood that although it had not caused the war, its booming economy had put it in a unique position to help dress the wounds. It also understood that European markets and political stability were an important part of the national interest. Today OECD nations are similarly in a position of enormous comparative wealth and have a compelling interest in global environmental, economic, and political

stability. In addition, they have all profited immensely from the carbon economy and thus should be expected to contribute to global adaptation efforts.

Like the Marshall Plan, a serious adaptation program would focus on allocating funds quickly. In the first years of the Marshall Plan, the U.S. government did not bother with highly uncertain cost-benefit surveys. Indeed, in the latter years of the program, the United States required receiving nations, themselves, to allocate U.S. funds, which they eventually did with the help of arbitration. (As it turns out, the final allocation of Marshall Plan funds roughly tracked a per capita distribution pattern.) Adaptation funds should not be allocated this loosely, but should ideally target need and population base, while including a strong role for participants in major allocation decisions.

Unlike the Marshall Plan, which focused only on Europe and excluded Japan and Hong Kong, a new adaptation fund would be geographically diverse and focus primarily on need. Targeting the fifty poorest nations would be a good start. A serious adaptation plan would emphasize physical infrastructure and a more precise targeting of programs to make sure that money reached the most needy people within countries. In this way, the adaptation program would differ from the Marshall Plan, which was more concerned with developing trade and consumer markets than it was with promoting environmentally sustainable economies.

The details will require a balance between the philosophical and realist notions of global justice. The philosophical side argues for aid with few conditions, premised either on one's membership in the global community or on one's subjection to unjust harm. The side of the realist is concerned not only with justice as an *end*, but also with justice as a *means*—in this case, a means toward cooperative efforts to fight climate change. This suggests the eventual need for development assistance with real strings attached in order to nudge countries like India, China, and Brazil toward serious mitigation and adaptation efforts.

The ideal adaptation plan would include a mix of methodologies. But the overriding goal would be to build trust between North and South. Industrial countries must promote policies that show concern for the real threats now facing developing countries. In the beginning, this may mean transfers of need-based aid without concern for political or economic policies. Eventually, aid must be tied to reform; but those reforms should be targeted primarily to enhance the conditions that make poorer nations most amenable to engaging in environmental cooperation. Future aid would thus help poor nations diversify resource-based economies and

encourage a strengthening of civil liberties and an acceptance of civil society.

"Climate change," write Roberts and Parks, "is fundamentally an issue of inequality." Addressing that inequality is fundamental to any future progress on climate change. As long as the North views southern desperation as largely irrelevant to its own interest, adaptation aid will continue to be a mission of charity only—help that we wish we would give, but don't want to. Seeing climate threats as issues of inequality and unfairness enables us to move from charity to justice and, as it turns out, from altruism to long-range self-interest.

Notes

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