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Redefining Security

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Source: *International Security*, Vol. 8, No. 1 (Summer, 1983), pp. 129-153

Published by: [The MIT Press](#)

Stable URL: <http://www.jstor.org/stable/2538489>

Accessed: 12/10/2010 08:53

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# Redefining Security

Richard H. Ullman

Since the onset of the Cold War in the late 1940s, every administration in Washington has defined American national security in excessively narrow and excessively military terms. Politicians have found it easier to focus the attention of an inattentive public on military dangers, real or imagined, than on nonmilitary ones; political leaders have found it easier to build a consensus on military solutions to foreign policy problems than to get agreement on the use (and, therefore, the adequate funding) of the other means of influence that the United States can bring to bear beyond its frontiers.

Even the Carter Administration, which set out self-consciously to depart from this pattern, found in its later years that the easiest way to deflect its most potent domestic critics was to emphasize those aspects of the dilemmas it faced that seemed susceptible to military solutions and to downplay those that did not. Jimmy Carter's failure to win reelection may suggest not that his political instincts in these respects were faulty but merely that his conversion was neither early nor ardent enough.

Just as politicians have not found it electorally rewarding to put forward conceptions of security that take account of nonmilitary dangers, analysts have not found it intellectually easy. They have found it especially difficult to compare one type of threat with others, and to measure the relative contributions toward national security of the various ways in which governments might use the resources at their disposal.

The purpose of this paper is to begin to chip away at some of these analytical problems. It proceeds from the assumption that defining national security merely (or even primarily) in military terms conveys a profoundly false image of reality. That false image is doubly misleading and therefore doubly dangerous. First, it causes states to concentrate on military threats and to ignore other and perhaps even more harmful dangers. Thus it reduces their total security. And second, it contributes to a pervasive militarization of international relations that in the long run can only increase global insecurity.

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*International Security*, Summer 1983 (Vol. 8, No. 1) 0162-2889/83/010129-15 \$02.50/0  
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*Security versus What?*

One way of moving toward a more comprehensive definition of security may be to ask: what should we be willing to give up in order to obtain more security? how do we assess the tradeoffs between security and other values? The question is apposite because, of all the “goods” a state can provide, none is more fundamental than security. Without it, as the 17th-century philosopher Thomas Hobbes observed in a passage often cited but endlessly worth recalling:

there is no place for Industry, because the fruit thereof is uncertain: and consequently no Culture of the Earth, no Navigation, nor use of the commodities that may be imported by Sea; no commodious Building; no Instruments of moving and removing such things as require much force, no Knowledge of the face of the Earth; no account of Time; no Arts; no Letters; no Society; and which is worst of all, continuall feare, and danger of violent death; And the life of man, solitary, poore, nasty, brutish, and short.<sup>1</sup>

For Hobbes it did not much matter whether threats to security came from within or outside one’s own nation. A victim is just as dead if the bullet that kills him is fired by a neighbor attempting to seize his property as if it comes from an invading army. A citizen looks to the state, therefore, for protection against both types of threat.

Security, for Hobbes, was an absolute value. In exchange for providing it the state can rightfully ask anything from a citizen save that he sacrifice his own life, for preservation of life is the essence of security. In this respect, Hobbes was extreme. For most of us, security is not an absolute value. We balance security against other values. Citizens of the United States and other liberal democratic societies routinely balance security against liberty. Without security, of course, liberty—except for the strongest—is a sham, as Hobbes recognized. But we are willing to trade some perceptible increments of security for the advantages of liberty. Were we willing to make a Hobbesian choice, our streets would be somewhat safer, and conscription would swell the ranks of our armed forces. But our society would be—and we would ourselves feel—very much more regimented.

The tradeoff between liberty and security is one of the crucial issues of our era. In virtually every society, individuals and groups seek security against

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1. *The Leviathan* (1651), Part I, Ch. XIII.

the state, just as they ask the state to protect them against harm from other states. Human rights and state security are thus intimately related. State authorities frequently assume—sometimes with justification—that their foreign enemies receive aid and sustenance from their domestic opponents, and vice versa. They often find it convenient, in any case, to justify the suppression of rivals at home by citing their links to enemies abroad.

The most profound of all the choices relating to national security is, therefore, the tradeoff with liberty, for at conflict are two quite distinct values, each essential to human development. At its starkest, this choice presents itself as: how far must states go, in order to protect themselves against adversaries that they regard as totalitarian, toward adopting totalitarian-like constraints on their own citizens? In the United States it is a tension that arises every day in the pulling and hauling between police and intelligence agencies and the Constitution. At a practical level, the choices become: what powers do we concede to local police? to the F.B.I.? to the C.I.A. and the other arms of the “intelligence community”?

Other security choices may seem equally vexing if they are not equally profound. One is the familiar choice between cure and prevention. Should the U.S. spend a (large) sum of money on preparations for military intervention in the Persian Gulf in order to assure the continued flow of oil from fragile states like Saudi Arabia, or should it be spent instead on nonmilitary measures—conservation, alternate energy sources, etc.—that promise substantially (although not rapidly) to reduce American dependence upon Persian Gulf oil? A second choice involves collaboration with regimes whose values are antithetic to America’s own. Should the United States government forge a relationship of greater military cooperation with the Republic of South Africa, and risk racial conflict in its cities at home? Or should it continue to treat South Africa as an international outlaw and perhaps enhance domestic racial harmony—an important characteristic of a secure society—at the cost of enabling the Soviet navy to pose a greater potential challenge to the safety of the sea lanes around Africa upon which so much vital cargo flows? A third choice involves military versus economic assistance to poor countries. Should U.S. policy aim at strengthening Third World governments against the military threats that they assert they perceive to come from the Soviet Union and its allies, or at helping their citizens develop greater self-reliance so as, perhaps, ultimately to produce more healthful societies with lower rates of birth and thus relieve the rising pressure on global resources? Finally, many choices juxtapose international and domestic priorities. If a stretched

national budget cannot afford both increased outlays for military forces and for a more effective criminal justice system at home, programs that create work opportunities for poor inner-city teenagers, or measures to improve the quality of the air we breathe and the water we drink, which expenditures enhance “security” more?

The tradeoffs implied in these and many other, similar questions are not as profound as that between security and liberty. But they are nevertheless capable of generating conflicts of values—between alternate ways of viewing national security and its relationship to what might be called global security.

There is, in fact, no *necessary* conflict between the goal of maintaining a large and powerful military establishment and other goals such as developing independence from Persian Gulf oil, promoting self-sustaining development in poor countries, minimizing military reliance on repressive governments, and promoting greater public tranquility and a more healthful environment at home. All these objectives could be achieved if the American people chose to allocate national resources to do so. But it is scarcely likely that they—or their Congressional representatives—will choose to make all the perceived sacrifices that such large governmental programs entail.

Indeed, the present Administration, supported by Congressional majorities, has embarked upon a substantial buildup of military spending while at the same time reducing outlays—and perceptible concern—for the other objectives listed here. Such policies are not merely neglectful of what some writers have called the “other dimensions” of security. They sometimes create conditions—increased worldwide arms expenditures, heightened intra-regional confrontations, and greater fragility rather than resilience in Third World governments—that make the world a more dangerous rather than a safer place. To use an image from the theory of games, there is a real danger that the policy choices of present and future U.S. administrations will place us on a square on the game board in which *all* the players are worse off. In other words, the game may well not be “zero-sum,” making the United States and some other nations more secure, or richer, while yet others are left less well off. Instead, it might be “negative-sum,” making all the nations perceptibly less secure, with fewer disposable assets to spend on welfare rather than on military forces.

To make this point is not to argue that a well-armed Soviet Union increasingly confident of its abilities to project military power at long distances poses no potential threat to American security. Clearly it does. Nor is it necessarily to argue (although I would do so) that much of what appears

threatening about recent Soviet behavior has its origins in Soviet responses to American policies and force deployments. That is a topic for a separate discussion.<sup>2</sup> But it is to argue that the present U.S. Administration—and, to a substantial degree, its predecessors—has defined national security in an excessively narrow way. It happens also (as will be suggested later) to be a politically quite expedient way.

### *A Redefinition of Threats*

In addition to examining security tradeoffs, it is necessary to recognize that security may be defined not merely as a goal but as a consequence—this means that we may not realize what it is or how important it is until we are threatened with losing it. In some sense, therefore, security is defined and valorized by the threats which challenge it.

We are, of course, accustomed to thinking of national security in terms of military threats arising from beyond the borders of one's own country. But that emphasis is doubly misleading. It draws attention away from the non-military threats that promise to undermine the stability of many nations during the years ahead. And it presupposes that threats arising from outside a state are somehow more dangerous to its security than threats that arise within it.

A more useful (although certainly not conventional) definition might be: a threat to national security is an action or sequence of events that (1) threatens drastically and over a relatively brief span of time to degrade the quality of life for the inhabitants of a state, or (2) threatens significantly to narrow the range of policy choices available to the government of a state or to private, nongovernmental entities (persons, groups, corporations) within the state. Within the first category might come the spectrum of disturbances and disruptions ranging from external wars to internal rebellions, from blockades and boycotts to raw material shortages and devastating "natural" disasters such as decimating epidemics, catastrophic floods, or massive and pervasive droughts. These are for the most part fairly obvious: in their presence any observer would recognize that the well-being of a society had been drastically impaired.

The second category is perhaps less obviously apposite. In considering it,

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2. There is no better place to begin that discussion than Robert Jervis, *Perception and Misperception in International Politics* (Princeton, N.J.: Princeton University Press, 1976), chapter 3.

it may be helpful to reflect on the way in which the threat from Nazi Germany to the United States was discussed in the years immediately preceding American entry into World War II—or, indeed, the way the threat from the Soviet Union has been viewed throughout most of the postwar era. Death and physical destruction are, of course, one realization of the threat. They represent “degradation of the quality of life” in its most extreme form, and they would be an inevitable result of war—even a war from which the United States emerged victorious.

But suppose war had not come. Suppose Hitler’s Germany or Stalin’s Russia had asserted domination over Western Europe and, perhaps, other parts of the globe as well. The conquerors would have organized those societies in a manner that almost certainly would substantially have closed them to the United States. That, of course, would have meant fewer opportunities for American traders and investors. But so, also, would there have been fewer opportunities for unfettered intellectual, cultural, and scientific exchange. And the extinction of civil and political liberty in countries which shared our devotion to those values would have made it more difficult to assure their preservation in an isolated and even besieged United States. In a very large number of ways, the range of options open to the United States government, and to persons and groups within American society, would have been importantly diminished.

It is easy to think of degradation of the quality of life or a diminution of the range of policy choices as “national security” problems when the source of these undesirable conditions is a large, powerful, antagonistic state such as Nazi Germany or Stalin’s U.S.S.R. And it is even (relatively) easy to organize responses to such clear and present dangers. But it is much more difficult to portray as threats to national security, or to organize effective action against, the myriads of other phenomena, some originating within a national society, many coming from outside it, which also kill, injure, or impoverish persons, or substantially reduce opportunities for autonomous action, but do so on a smaller scale and come from sources less generally perceived as evil incarnate. Interruptions in the flow of critically needed resources or, indeed, a dwindling of the available global supply; terrorist attacks or restrictions on the liberty of citizens in order to combat terrorism; a drastic deterioration of environmental quality caused by sources from either within or outside a territorial state; continuing violence in a major Third World state chronically unable to meet the basic human needs of large numbers of its citizens; urban conflict at home perhaps (or perhaps not)

fomented by the presence of large numbers of poor immigrants from poor nations—all these either degrade the quality of life and/or reduce the range of policy options available to governments and private persons.

For a leader trying to instill the political will necessary for a national society to respond effectively to a threat to its security, a military threat is especially convenient. The “public good” is much more easily defined; sacrifice can not only be asked but expected; particular interests are more easily coopted or, failing that, overridden; it is easier to demonstrate that “business as usual” must give way to extraordinary measures; dissent is more readily swept aside in the name of forging a national consensus. A convenient characteristic of military threats to national security is that their possible consequences are relatively apparent and, if made actual, they work their harm rapidly. Therefore, they are relatively noncontroversial.<sup>3</sup>

The less apparent a security threat may be—whether military or nonmilitary—the more that preparations to meet it are likely to be the subject of political controversy. The American and the Soviet military establishments are symbiotically allied in the effort to coax resources from their respective political chiefs. Each regularly dramatizes (and surely exaggerates) the threat posed by the other. The effects of such arguments within the Kremlin are not easy to document, but the evidence suggests that they are often persuasive. So are they generally persuasive for American Congressmen anxious to demonstrate to their constituents that they are “pro-” national security. The contrast with the generally unenthusiastic reception given to programs aimed at aiding poor countries, ameliorating the disaffection of poor persons at home, halting environmental degradation, stockpiling strategically important materials, or other such measures is striking but scarcely surprising. Proponents of such programs in fact frequently do justify them on the ground that they promote national security. But because their connection to security is often not immediately apparent, opponents find it easy to reject or simply ignore such arguments, if not to refute them.<sup>4</sup>

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3. This is not to say that there are not recriminations following wars or military crises. Indeed, the governments that lead nations when war is thrust upon them—or when they initiate war themselves—are often subject to pillory. It may be alleged that their complacency allowed their nations’ defenses to atrophy to a point where their military forces no longer deterred attack. Or they may be accused of recklessness that brought on a needless and expensive war. But while the war is still in prospect, or while it is actually underway, there are too seldom any questions of leaders’ abilities to command the requisite resources from their perceptibly threatened countrymen.

4. The same is true, it should be noted, about some “ordinary” foreign threats. In 1975 a



*Preparing for Catastrophe*

A comparison between American society's preparations for two events, each carrying relatively low risks but each posing the threat of catastrophically high costs, is instructive. One is nuclear war between the United States and the Soviet Union. The other is a large earthquake along the San Andreas fault that runs much of the length of the state of California. Nuclear war would undoubtedly result in many more casualties and much greater damage, but a major earthquake along the San Andreas fault, and the gigantic tidal wave that would likely follow it, might well kill or seriously injure hundreds of thousands of persons and cause billions of dollars of damage to property. Certainly it would be devastating to regional, if not national, security. Seismologists say that the probability of such an earthquake occurring within half a century is relatively high, from 2 to 5 percent in any one year.<sup>5</sup> The odds that large-scale nuclear war will occur cannot be so confidently calculated, but they are surely much smaller.

Every year the United States government spends many billions of dollars to build up nuclear forces whose purpose, at least according to strategic theory, is to make nuclear war between the U.S. and the U.S.S.R. less likely. Americans regard that as a proper function of government. So, also, do most Americans probably regard the construction of shelters and other facilities that might reduce the damage caused by nuclear war should it occur. But administrations in Washington or in likely target states and municipalities habitually spend very much less—indeed, quite small sums—on such measures, and they spend even less on measures that might reduce the damage from a catastrophic earthquake.<sup>6</sup>

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majority of Senators and members of Congress did not believe that the presence of Soviet-supported Cuban troops in Angola posed a significant threat to U.S. security, and legislated limits on potential American involvement. Three years earlier they imposed a cutoff on U.S. bombing of targets in Cambodia and North Vietnam on the supposition that continued bombing would no longer (if it ever did) promote U.S. security. For a discussion of these Congressional curbs on the President's ability to commit American military resources, see Thomas M. Franck and Edward Weisband, *Foreign Policy By Congress* (New York: Oxford University Press, 1979), esp. pp. 13–23 and 46–57.

5. For a recent authoritative study, see *An Assessment of the Consequences and Preparations for a Catastrophic California Earthquake: Findings and Actions Taken* (Washington: Federal Emergency Management Agency, 1980). For a summary of current estimates, see Richard A. Kerr, "California's Shaking Next Time," *Science*, Vol. 215 (January 22, 1982), pp. 385–387.

6. The Federal Emergency Management Agency's (FEMA) fiscal year 1983 appropriation for civil defense was \$147,407,000; for "comprehensive emergency preparedness planning" for

How can we explain these discrepancies? Regarding so-called “passive” defenses against nuclear weapons (shelters and the like, as distinguished from “active” defenses such as missiles to shoot down missiles), one explanation is that the task seems too daunting, a quixotic effort given the size of the attack the Soviet Union could launch. When scores of millions might be killed, the prospect of saving tens of millions—as, indeed, a large-scale effort at civil defense might make possible—seems heartening only to the most zealous student of what has come to be called “comparative recovery rates” between the U.S. and the U.S.S.R. And the cost of such a shelter program would be enormous, very expensive insurance against a catastrophic but very unlikely risk. Yet there is little doubt that it could (within these macabre limits) be made effective.<sup>7</sup>

Against earthquakes, of course, shelters can offer little protection. The danger to life and property along the San Andreas fault comes because many hundreds of thousands of California residents have individually made decisions to locate their homes and businesses there. In their view, the advantages of cost or location outweigh the disadvantages of exposure to the risk of major catastrophe. They might increase their own and their families’ chances for survival by strengthening existing buildings or replacing them with more resistant structures. But the probability is that, owing to the geologic properties of the San Andreas fault, an earthquake there would be so severe that for many structures such measures would be ineffective. In such a situation governmental authorities can do little but monitor, warn, and make sure that emergency facilities are on hand for the moment when

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earthquakes it was \$3,120,000. California’s total budgeted expenditure for earthquake safety for fiscal year 1983 was \$13,391,000. For a detailed breakdown, see State of California, Seismic Safety Commission, *Annual Report to the Governor and the Legislature for July 1981–June 1982* (Sacramento: August 1982), pp. 16–21.

7. The “classic” appeal for a large U.S. civil defense program, based upon hypothesized comparative U.S. and Soviet recovery rates, is T.K. Jones and W. Scott Thompson, “Central War and Civil Defense,” *Orbis*, Vol. 22, No. 3 (Fall 1978), pp. 681–712. For a more recent discussion, see Robert Scheer, *With Enough Shovels: Reagan, Bush and Nuclear War* (New York: Random House, 1982), pp. 104–119.

The enormous cost is one principal argument against a large-scale U.S. civil defense program. But another relates to strategic doctrine. A civil defense program that promises to offer effective protection might in a crisis invite an enemy first-strike attack. The adversary, so this reasoning runs, would read large-scale civil defenses as indicating that we ourselves were prepared to initiate nuclear war. It would therefore strike at the first sign that we were beginning to move our population into shelters, as we surely would during a severe international crisis. Thus we enhance stability by not opting for civil defenses: the other side knows that since our population is exposed, *we* would not be likely to initiate nuclear war, and the incentives for *them* to strike preemptively are thereby reduced.

a devastating quake occurs. Alas, while federal and state agencies currently monitor seismic events, they have done relatively little actually to prepare for the predicted disaster. Yet there is no doubt that, should it occur, the consequences would be extraordinarily dire.<sup>8</sup>

It scarcely needs stating that there are vast differences between the threats to “national security” posed by nuclear weapons and those posed by catastrophic natural disasters. Nuclear wars, after all, originate in human minds: other minds may therefore initiate actions to affect the adversary’s calculations of costs and benefit, of risks and reward. Behind earthquakes and floods are no minds. They cannot be deterred. But their potential damage can be substantially reduced by the application of foresight and the expenditure of resources. Indeed, the probability that an incremental expenditure on protection against earthquakes or floods will be effective is surely very much greater than the probability that a comparable incremental expenditure will enhance deterrence against nuclear war. Yet Americans and their elected representatives are prepared to acquiesce in—indeed, in some instances they show enthusiasm for—vast programs of weapons acquisition which, in the name of forestalling nuclear war, have given the United States enough nuclear weapons to exterminate the world’s population several times over. But the polity is ill-equipped to make resource allocations that, dollar for dollar, would contribute at least as much to “security” as would the acquisition of the additional nuclear weapons upon which the present Administration seeks to spend many billions of dollars.

The example of protection against earthquakes raises other interesting points of comparison. While some community measures are useful, risk aversion against such disasters is very largely in the hands of individuals. Individuals can also affect at least to some limited extent the degree to which they will be at risk in the event of nuclear war. They can choose not to live in the vicinity of likely nuclear targets, and householders can provide themselves with substantial protection against fallout and at least some protection against blast effects. But the pattern of a Soviet nuclear attack—and, therefore, the location of likely danger—is very much more difficult to predict than the danger zone of a major earthquake. And the opportunity costs to a citizen of choosing to live in a place so remote that injury from nuclear

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8. The FEMA study cited above (note 5) estimates that the likely damage from the most probable (but far from the most destructive) major earthquake on the San Andreas fault might be \$17 billion, but it indicates that the figure might be low by a factor as high as three (p. 22).

weapons effects are likely to be minimal are very much greater than the costs of choosing not to live near the San Andreas fault or another area of similarly great seismic instability, whose locations are all well known. In addition, protection against nuclear weapons effects is much more a community matter than is protection against earthquakes. Particularly is this true for residents of multiple-family urban dwellings. Only communities can afford to construct the deep, strong shelters that would offer city residents even a remote chance of surviving a nearby nuclear explosion.<sup>9</sup>

The other nonmilitary security measures discussed thus far in this paper are almost all considerably farther than protection against earthquakes toward the community end of a spectrum running from the individual to the national community.<sup>10</sup> Economic assistance to poor countries, programs to reduce dependence upon Persian Gulf oil, military relations with repressive regimes, efforts to combat air and water pollution, stockpiling of scarce resources, all require either governmental allocation of resources or governmentally framed policies and regulations. Like the acquisition and deployment of military forces, they all depend upon organization to be effective; in a polity like the United States, the impetus for such organization must come from government, the ultimate wielder of carrots and sticks.

#### *Indirect Threats: Conflicts over Territory and Resources*

At the root of most of the violent conflicts in history has been competition for territory and resources. The coming decades are likely to see a diminution in the incidence of overt conflict over territory: the enshrinement of the principle of national self-determination has made the conquest of peoples distinctly unfashionable. But conflict over resources is likely to grow more intense as demand for some essential commodities increases and supplies

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9. The most authoritative generally available projection of the effects of a variety of types of Soviet nuclear attacks on the United States is *The Effects of Nuclear War* (Washington, D.C.: Congress of the United States, Office of Technology Assessment, 1979).

10. It should be noted that the currently preferred mode of *avoiding* nuclear war (as distinguished from diminishing the likely effects of nuclear war) is at the far end of this spectrum: the maintenance of a *deterrent* nuclear striking force is preeminently a national responsibility—one, incidentally, beyond the grasp of all but the wealthiest nation-states. Other modes of avoiding war, such as negotiation and disarmament, are also endeavors which only duly legitimate national authorities, as distinguished from sub-national groupings or private individuals, can undertake. Earthquakes differ from nuclear war in that they cannot be either deterred or forestalled. But societies can protect against their effects. That is why, despite obvious differences, the comparison with nuclear war as a threat to societal security seems instructive.

appear more precarious. These conflicts will also have their territorial aspects, of course, but the territory in contention is likely either to be unpopulated or only sparsely populated. Much of it will be under water—oil-rich portions of the continental shelves. Those parts above water will be the ostensible prizes, often isolated or barren islands whose titles carry with them exclusive rights to exploit the riches in and under the surrounding seas.

Such struggles over resources will often take the form of overt military confrontations whose violent phases will more likely be short, sharp shocks rather than protracted wars. In most instances they will involve neighboring states—Chile and Argentina, Iraq and Iran, Greece and Turkey, Morocco and Algeria, China and Vietnam, and many others. Most will be in the Third World. None is likely to involve the United States, although American firms—oil companies and other resource-extracting enterprises—may well be caught up on either side of a particular dispute. Thus, if national security is defined in conventional ways this country's national security is not likely to be directly affected by such disputes.<sup>11</sup>

Their indirect impact upon American national security is likely to be large, however. Supplies of essential commodities will be at least temporarily disrupted. Local regimes may fall, their places taken by successors often less friendly to the United States. Outside powers hostile to American interests, such as the Soviet Union or Cuba, may intervene to support local clients, placing pressure on Washington to launch (or at least organize) counter-interventions. In some quite plausible scenarios Washington might intervene to protect local clients whether or not Moscow or Havana were involved. Those circumstances that might lead to a direct confrontation of Soviet and American forces are, of course, the ones most dangerous to U.S. national security. Luckily, they are also the least likely.

"Resource wars" (as some call them) have figured prominently in doomsday forecasts for more than a decade. But they are only one way—and not the most important way—in which resource issues will impinge upon national security in coming years. It will not require violent conflict for resource scarcities to affect the well-being—and the security—of nations on every rung of the development ladder. In considering ways in which such scarcities

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11. For a discussion of the kinds and scope of disputes that are likely to arise, see Ruth W. Arad and Uzi B. Arad, "Scarce Natural Resources and Potential Conflict," in Arad et al., *Sharing Global Resources*, 1980s Project/Council on Foreign Relations (New York: McGraw-Hill, 1979), pp. 25–104.

might affect national security, analysts should distinguish those that arise from expansion of demand from those arising from restrictions on supply.

#### THREATS FROM RISING WORLDWIDE DEMAND

Behind expanding demand, of course, lies the continuing rapid growth in the world's population. Specialists note that the rate of population growth has not yet overtaken that of the globe's capacity to feed, house, and care for its people.<sup>12</sup> But that capacity is sorely strained. Moreover, global mechanisms for distributing or for managing resources are not effective enough to prevent local catastrophic failures or to prevent the consumption of some crucial renewable resources at greater-than-replacement rates. Those resources include tropical forests and other sources of fuelwood, fish stocks, the ozone layer surrounding the earth, and the global supply of clean air and water. Moreover, these problems are interconnected. Here is but one example: As Third World villagers cut down more and more forests in their search for fuelwood, the denuded land left behind is prey to erosion. Rains carry topsoil away, making the land unfit for cultivation. The topsoil, in turn, silts up streams in its path. Meanwhile, the fuel-short villagers substitute dung (which otherwise they would use for fertilizer) for the wood they can no longer obtain, further robbing the soil of nutrients and bringing on crop failures. Unable to sustain themselves on the land, many join the worldwide migration from the countryside into the cities.<sup>13</sup>

That migration—caused by many factors—has given rise to an explosive growth in the population of most Third World cities. Many are ringed by shantytowns containing millions of squatters, a high proportion of them unemployed, malnourished, and living in squalor. Under the weight of these enormous numbers municipal services break down and the quality of life for all but the very rich suffers drastically. Such cities are forcing grounds for criminality and violence. Some suffer a breakdown of governmental authority and become virtually unmanageable. Others are governable only by increasingly repressive means that lead, in turn, to a decline in the perceived legitimacy of the regime in power. Especially is this the case in nations that

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12. See the tables in the statistical annexes to Roger D. Hansen et al., *U.S. Foreign Policy and the Third World: Agenda 1982*, Overseas Development Council (New York: Praeger Publishers, 1982), esp. tables B-8 and C-1.

13. For a discussion that brings out the seamless nature of this problem, see Lester R. Brown, "World Population Growth, Soil Erosion, and Food Security," *Science*, Vol. 214 (November 27, 1981), pp. 995–1002.

are marked by ethnic or religious divisions. When the resources of a nation are severely strained, those at the bottom of a social hierarchy are quick to imagine—often with justification—that those who govern distribute the benefits at their disposal in ways that favor some groups at the expense of others.

There is a widespread assumption that these are the circumstances from which revolutions are born. In fact, there is little evidence that any recent revolution except perhaps the one in Iran has had urban roots. Although rapid population growth and its attendant miseries have certainly given rise to conflicts, particularly along communal lines, the governing authorities in most Third World countries have been able to contain them. Rather than forging links among urban (and rural) dispossessed persons, recent arrivals in Third World cities have tended to be overwhelmingly preoccupied with retaining (and, if possible, expanding) whatever economic niches they have been able to carve for themselves. They have thus far provided few recruits for those who would organize revolutions, nor much in the way of troubled waters in which outside powers might fish.<sup>14</sup>

First World governments and peoples might be advised not to take too much comfort from this record. Although the consequences of explosive Third World population growth and rapid urbanization have not yet been felt much beyond their countries of origin, the strains on fragile political structures will not ease before the end of the century, if then: the would-be workers who will seek employment in the swollen cities of the Third World during the 1990s have already been born. Even if these strains do not give rise to revolutions (and, perhaps, to foreign interventions), they are likely to make Third World governments more militantly confrontational in their relations with the advanced, industrialized states. And they will produce multifold other pressures on the rich nations. For the United States, the most directly felt pressure is that of would-be immigrants, some coming through lawful channels, most coming illegally. The pressure is especially severe—and probably increasing—from Mexico, but it comes from all over the Caribbean and Central American region and from other continents as well. As population growth in the poor countries hobbles economic development, the

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14. For a thorough survey of extant social science research on Third World urban growth and its relationship to political instability, see the unpublished paper by Henry Bienen, "Urbanization and Third World Stability," Research Program in Development Studies, Woodrow Wilson School, Princeton University, December 1982.

gap in living standards between them and the rich countries is likely to continue to widen, and resentment of the rich—rich nations and rich persons—will continue to grow. So will pressures for immigration. The image of islands of affluence amidst a sea of poverty is not inaccurate. This image has given rise to doomsday scenarios in which, several decades from now, the poor will threaten the rich with nuclear war unless the rich agree to a massive redistribution of wealth.<sup>15</sup> But even if these scenarios do not eventuate (and the superior destructive capabilities of the rich make such *denouements* unlikely), the pressure engendered by population growth in the Third World is bound to degrade the quality of life, and diminish the range of options available, to governments and persons in the rich countries.

This paper is not the place for detailed discussion of ways to slow population growth in the Third World, to help Third World countries absorb their multitudes of new citizens, and to introduce order into their processes of urban development. It is sufficient to say that most such ways involve transfers of resources and expertise to Third World countries. The record of the United States in these areas is generally abysmal: among the O.E.C.D. nations it is near the bottom of the league tables with regard to official development aid calculated on a per capita basis. Only in population programs has the U.S. made a respectable effort.<sup>16</sup> But U.S. programs to assist other nations to solve their population problems are increasingly coming under attack from the “right-to-life” movement in this country, many of whose supporters are in the forefront of those pressing for large increases in military spending. They, and the opponents of economic assistance in general, may someday pay a significant price for their arbitrarily narrow definition of national security.

#### THREATS FROM THE SUPPLY SIDE

Population growth dominates the problem of rising worldwide demand for resources. Moreover, overall demand is rising even more rapidly than population growth figures alone would indicate. Many developing countries

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15. For a prototypical example, see Robert L. Heilbroner, *An Inquiry into the Human Condition* (New York: W.W. Norton, 1975), esp. pp. 42–45. For a provocative variation, see McGeorge Bundy, “After the Deluge, the Covenant,” *Saturday Review/World*, August 24, 1975, pp. 18–20, 112–114.

16. For the O.E.C.D. rankings, see Hansen, *Agenda 1982*, table F-8 and figure F-18. For population programs, see Dana Lewison, “Sources of Population and Family Planning Assistance,” *Population Reports*, Vol. 11, No. 1 (January–February 1983).



contain growing "modern" sectors, enclaves of affluence and higher living standards that enjoy the same wasteful consumption patterns of the industrialized world. That imposes yet additional strains on world resources. By contrast, no single factor dominates the problem of constraints on resource supplies. A crucial distinction is whether the resource in question is renewable, like forests or fish stocks or feedgrains, or nonrenewable, like (preeminently) oil. A second crucial distinction is whether the resource is becoming increasingly scarce through "normal" depletion or through efforts by governments (or, indeed, private persons) artificially to restrict supplies by means of boycotts, embargoes, cartel agreements, recovery limitations, and the like. Supply constraints are most injurious when they are sudden. For virtually every raw material there are substitutes with properties sufficiently similar so that replacement is possible. But whether or not replacement can take place without painful disruption depends upon whether the shortage in supply of the original item was foreseen adequately far in advance to make possible smooth adjustment.

The United States is in a particularly fortunate position. Study after study in recent years has concluded that oil is the only commodity whose sudden cutoff would have a drastic effect on national welfare or on economic activity. Indeed, the same applies in large measure to all of the advanced industrialized market-economy states. Since most produce a considerably smaller proportion of their domestic oil consumption than the United States, most would find an oil cutoff even more disruptive.<sup>17</sup> But other essential imported materials for them, as for the United States, either come from highly reliable suppliers—like-minded states—or from a sufficiently diverse range of suppliers so that a boycott by one or more would not impose really serious harm.<sup>18</sup> Regarding foodstuffs, the O.E.C.D. countries are for the most part well provided for. Collectively they produce large agricultural surpluses.<sup>19</sup>

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17. See David A. Deese and Joseph S. Nye, eds., *Energy and Security* (Cambridge, Mass.: Ballinger, 1981), esp. pp. 131–228 and appendix B, "Worldwide Production and Use of Crude Oil."

18. See the well-documented discussion in Arad, "Scarce Natural Resources," pp. 32–59. For a widely cited earlier statement, see Stephen D. Krasner, "Oil is the Exception," *Foreign Policy*, No. 14 (Spring 1974), pp. 68–84. John E. Tilton, *The Future of Nonfuel Minerals* (Washington: The Brookings Institution, 1977), reaches the same conclusions.

19. A concise survey of global patterns of food production and consumption is in Paul R. Ehrlich, Anne H. Ehrlich, and John P. Holdren, *Ecoscience: Population, Resources, Environment* (San Francisco: W.H. Freeman, 1977), pp. 284–297. For a current accounting by a U.S. Agriculture Department official, see Terry N. Barr, "The World Food Situation and Global Grain Prospects," *Science*, Vol. 214 (November 27, 1981), pp. 1087–1095.

Individual O.E.C.D. states that import a high proportion of their domestic food consumption—Japan is the most important—need not worry about major disruptions of supply because their purchasing power will give them first claim on world markets.

The problem is much more serious for Third World states. Many are not able to feed themselves and find it difficult to pay for imported foodstuffs, a difficulty compounded since 1973 by the rising cost of the oil they also must import.<sup>20</sup> Food is indeed a weapon that can be wielded against them—although the industrialized states are most unlikely to employ it. The much more serious danger they face is their acute vulnerability to natural disasters that may cripple their own food production or substantially reduce the supply (and therefore raise the price) of foodstuffs on the world market. As population growth brings more mouths to feed, the situations of many Third World states are likely to grow more and more precarious.

Demand and supply are always related, of course. One approach to the resource problem is slowing the growth of demand by slowing the growth of population. But supply-side measures are equally necessary. When the too-rapid exploitation of renewable resources is viewed as a supply problem, the solution seems to lie in creating mechanisms for effective regulation of the rate at which fish are caught, forests are cut, seed crops are harvested for food, and effluents are released into streams and emissions into the atmosphere. Sometimes the nation-state is the appropriate arena for such regulatory activity. In other instances, international mechanisms (“regimes,” in the current academic jargon) are required. Such measures are likely to be really effective, however, only when they are combined with efforts to slow the growth of demand. Moreover, as noted earlier, increasing demand for many commodities is a product not merely of population growth, but of rising affluence. And rising affluence is often not accompanied by rising sensitivity to the need for resource management, and the appropriate technical and political skills to make management possible.

As indicated above, one way to cope with depleting supplies of any commodity is to find substitutes for it. That applies even to some renewable resources—although not, of course, to clean air and water. It applies more obviously to nonrenewable resources. For minerals and fuels, a sensible strategy is to create stockpiles that make it possible to cope with short-run

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20. See Deese and Nye, *Energy and Security*, pp. 229–58.

interruptions of supply while developing substitutes to cope with long-run inevitable depletion.

These are scarcely difficult principles to grasp. What is difficult is to persuade governments to allocate funds to put the principles into practice. Especially for powerful countries like the United States that are used to getting their way in the world, it seems easier to arouse the political will to respond to a supply disruption with military means than to forestall the disruption in the first place by fostering alternate sources of supply, or by developing substitutes for the resource whose supply is threatened.

### *Assessing Vulnerability*

In every sphere of policy and action, security increases as vulnerability decreases.<sup>21</sup> At the most basic level of individual survival, this is a law of nature, seemingly as well understood by animals as by humans. At that level it is a reflexive response. Reducing vulnerability becomes a matter of policy, rather than of reflex action, when it seems necessary to calculate the costs and benefits involved. How much security do we buy when we expend a given increment of resources to reduce vulnerability? That is a difficult question even in relatively simple situations, such as a householder stockpiling a commodity against the possibility of a disruption in accustomed channels of supply. At the level of the community, rather than the individual, it becomes very much more difficult: different members assess risks differently, and they may well be differently damaged by a disrupting event. An investment in redundancy that seems worthwhile to one family may seem excessively costly to another. Neither will know which is correct unless the crunch actually comes. And even then they might disagree. They might experience distress differently.

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21. Some might argue that this is not the case in the strategic nuclear relationship between the United States and the Soviet Union, and that it is the knowledge within each government that its society is highly vulnerable to nuclear attacks by the other that keeps it from ever launching such an attack itself. Security is thus a product of vulnerability. This argument has considerable force as a logical construct. Yet, not surprisingly, neither superpower is content to act upon it. As technological developments seem to make possible the limitation of damage from at least some forms of nuclear attack, each pursues them for fear that the other will secure a momentary advantage. We are therefore faced with the worst of situations, in which one or the other may be unduly optimistic regarding the degree to which it might limit damage to its own society if it were to strike first. Decreased vulnerability *accurately* assessed may well enhance security even in strategic nuclear relations; misleadingly assessed it may bring disaster.

At the level discussed in this paper, where states are the communities involved and where the problems are for the most part considerably more complicated than a simple disruption in an accustomed channel of supply, the relationship between decreased vulnerability and increased security is formidably difficult to measure. Consider even the relatively simple measure of adding crude oil to the U.S. Strategic Petroleum Reserve, the (for the most part) underground stockpile whose purpose is to make it possible for the nation to ride out a cutoff in deliveries from one or more major foreign oil suppliers. We know, of course, the cost of buying and storing a given increment of crude oil. But until mid-1981 the government of Saudi Arabia (the world's major exporter of oil) took the position that U.S. stockpiling of oil was an unfriendly act. It claimed that it maintained high levels of oil production to provide immediate benefits—"moderate" prices—to Western (and other) consumers, not to make it possible for Washington to buy insurance against the day when the Saudi leadership might want to cut production so as, say, to influence U.S. policy toward Israel. Successive administrations in Washington have regarded the retention of Saudi good will as something close to a vital American interest, on both economic and strategic grounds. They therefore dragged their feet on filling the Strategic Petroleum Reserve.<sup>22</sup>

Who can say with assurance that those administrations were wrong? Who could measure—before the event—the effects of putting Saudi noses out of joint? It may well have been that even so seemingly modest a measure as adding to the oil stockpile would ripple through Saudi and Middle Eastern politics in such a manner as ultimately to bring about just that calamity against which the stockpile is intended to offer insulation, that is, a production cutback. Moreover, being finite in size, the stockpile may not offer sufficient insulation against a protracted deep cutback. But, by the same token, who can be sure that even if the reserve remains unfilled (its level is still far below the total originally planned<sup>23</sup>), and even if the United States takes other additional measures to mollify the Saudis, an event will not occur

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22. See, e.g., Walter S. Mossberg, "Kowtowing on the Oil Reserve," *The Wall Street Journal*, May 14, 1980, p. 20, and Sheila Kast, "Filling Our Strategic Oil Reserve," *Washington Star*, February 9, 1981, the latter quoting Secretary-of-State-designate Alexander M. Haig, Jr., as calling the Saudi position "oil blackmail."

23. The Energy Information Administration's *Monthly Energy Review* (Washington: U.S. Department of Energy) presents a running tally of the size of the Strategic Petroleum Reserve. For a technical account of how the reserve is maintained, see Ruth M. Davis, "National Strategic Petroleum Reserve," *Science*, Vol. 213 (August 7, 1981), pp. 618–622. See also Deese and Nye, *Energy and Security*, pp. 326–328, 399–403.

that will trigger a supply disruption in any case? If that occurs, the nation would clearly be better off if it possessed a healthy reserve of stored oil, even one insufficient to cushion the entire emergency.

Ever since the OPEC embargoes of 1973–74, Western governments have been extremely sensitive to any hint of a further cutoff of oil or, for that matter, of other, less critically needed resources. It is not surprising that many analysts both in Washington and in other NATO capitals interpreted the Soviet invasion of Afghanistan at the end of 1979 not simply as Moscow's ruthless effort to handle a local political dilemma but as the start of a Soviet march toward the Persian Gulf. Since then, both the Carter and the Reagan Administrations have regarded raising a robust combined-arms military force earmarked for Gulf contingencies—the so-called Rapid Deployment Force—as the most appropriate and, not so coincidentally, also the politically most saleable response to the threat of instability in the Gulf.

Yet there is wide agreement among specialists that additional overt Soviet border-crossing aggression in the Middle East is an unlikely contingency. Far more likely is the coming to power in a major oil-producing state like Saudi Arabia of a militantly anti-Western regime that might restrict production. Against such an eventuality the Rapid Deployment Force offers little insurance, for there would be great resistance in Congress and in the public at large to any Presidential use of American forces for intervention in the turbulent internal politics of the region.

It requires a long and more relaxed view to deemphasize military intervention as an instrument of policy, however. And a longer view is much more possible under conditions of reduced vulnerability. Then the occupant of the Oval Office would be more likely to feel that he really has the option of allowing the politics of regions like the Middle East to run their course. Were the United States less vulnerable to interruptions in the supply of the region's oil, administrations might find they had a wider range of options for pursuing other interests, such as protecting communication routes or the independence of Israel. Communications routes, for instance, can be protected at many points. And the American commitment to Israel would cost less if the U.S. were not simultaneously supplying some of Israel's enemies with the most potent weapons in its inventory and then giving the Israelis additional weapons to offset them.

As this paper has suggested, many of the conditions that may most affect U.S. security have their origins in circumstances that have little or nothing to do with the rivalry between the United States and the Soviet Union. Yet

many of them, if not managed, have the potential to give rise to crises between the superpowers as one or the other intervenes to secure resources or to support its clients in a domestic or regional conflict in the Third World. For crisis prevention, if for no other reasons, political leaders in Washington—and in Moscow, too—should pay heed to these conditions.<sup>24</sup>

There are, of course, other reasons. To the extent that the quality of life in the United States is degraded by resource scarcities and by the deterioration in the quality of life beyond its borders, Americans should be concerned. That is but the counsel of prudence. Focussing attention on these “other dimensions of security” will require political leadership of the highest order, however. Moreover, it will require far greater consensus than now exists regarding what is to be done.

The absence of consensus is, indeed, a formidable obstacle. There is no agreement within the American policy community regarding ways of coping with resource scarcities or with the problems of poverty and explosive population growth in the Third World. The Administration currently in Washington is ideologically committed to market solutions in virtually every sphere of policy. Thus, rather than develop government stockpiles of oil and other scarce resources it prefers to leave the task to private entities. Indeed, so opposed is the Reagan Administration to governmentally directed resource management that it has even encouraged the depletion of the largest oil stockpile it itself owns, the oilfields set aside as so-called Naval Petroleum Reserves.<sup>25</sup>

The same is true for investments in alternate energy sources. The Administration has drastically reduced federal allocations for energy research and development of all sorts. Nuclear fusion, solar energy, unconventional oils—all have had their appropriations sliced. (Only the Clinch River breeder reactor, a project in the home state of the Republican Senate majority leader, has been spared.)<sup>26</sup> Not surprisingly, in an economic climate marked by both recession and high interest rates, the private sector shows few signs of acting upon the Administration’s preferences, ideologically congenial though they

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24. For an excellent discussion of the genesis and prevention of superpower crises, see Alexander L. George, *Managing U.S.–Soviet Rivalry: Problems of Crisis Prevention* (Boulder, Colo.: Westview Press, 1983).

25. Richard Corrigan, “Three Bowls of Oil,” *National Journal*, December 5, 1981, p. 2167.

26. See these articles by Richard Corrigan, the *National Journal*’s energy correspondent: “The Next Energy Crisis: A Job for the Government or the Free Market?,” June 20, 1981, pp. 1106–1109; “On Energy Policy, the Administration Prefers to Duck, Defer and Deliberate,” July 18, 1981, pp. 1280–1283; and “Down for the Count,” May 22, 1982, p. 919.

may be. Despite bargain prices, there has been little stockpiling of commodities. And, with a worldwide oil glut, the private sector has shown no inclination to invest in energy alternatives.

Opponents of the Administration's position assert that, regardless of the economic climate, the marketplace is incapable of adequately discounting scarcity. Therefore, they argue, the intervention of a single, authoritative actor—by definition, the federal government—is required to build up stockpiles and to fund research and development activities that are not likely to pay off within commercially acceptable timeframes.<sup>27</sup>

### *Measuring Security*

That intervention will necessarily give rise to what appear to be inefficiencies. They will appear so because it will be possible to compare the costs of resources stockpiled, or developed by new production techniques, with the costs for the same or similar commodities bought on the market. Usually—unless there has been an intervention of a different sort, such as an embargo by suppliers—the costs of stockpiles or substitutes will be higher. It is easy to quantify these so-called inefficiencies. And once quantified, they are easy to decry. On the other hand, it is much more difficult to assign a weight to the security that the community may have purchased by sustaining them.

It is at least as difficult, however, to assign a weight to the quantity of security that the community purchases by a given investment in military hardware or in manpower. A missile or a tank or an infantry battalion that never enter combat are like commodities purchased for a stockpile. They also are inefficiencies. Yet we less often look at military purchases that way. We do, of course, incessantly decry “waste and inefficiency” in the armed services and in the defense industries. But we usually mean that better management could have purchased comparable military capability for less money. Rarely do we ask whether the possession of that particular capability is in itself “efficient.”

That is not to say that we do not often compare military with nonmilitary expenditures. Indeed, such comparisons are a staple of political discourse. Someone points out that for the price of, say, one Navy F-14 fighter it would be possible to build a certain number of daycare centers or black-lung clinics

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27. Corrigan, “Energy Policy,” *National Journal*, July 18, 1981, p. 1283.

for the mining towns of Appalachia. And we know that, unlike the F-14, the centers or clinics would be “used” (indeed, we hope the F-14 will never enter combat). Moreover, we know quite precisely how much welfare we purchase with a childcare center or a clinic. We can quantify it in terms of children attending (and mothers working) or patients treated. But at that point the comparison between guns and butter ends. We can weigh American forces against Soviet forces, and we can compare the capabilities of one weapons system against another. But we cannot really quantify the security we buy with the funds we spend on an F-14 or, indeed, on an entire carrier task group. We assume that the task group will deter hostile actions by unfriendly nations. But it may be that a smaller American Navy will deter them equally well, and a carrier air wing minus one F-14 may be fully capable of meeting all the threats that ever come against it.<sup>28</sup>

This discussion has sought to show that we generally think about—and, as a polity, dispose of—resource allocations for military and for nonmilitary dimensions of security in quite different ways. Regarding military forces, although analysts and interest groups may have their own ideas about such issues as the appropriate size of the American fleet or the composition of its air wings, there is general agreement on the principle that there must in the end be a single, authoritative determination, and that such a determination can come only from the central government of the polity. Because we acknowledge that there is no marketplace in which we can purchase military security (as distinguished from some of its components), we would not look to private individuals or firms or legislators or regional governments to make such a determination, even though we might disagree with the determination that the federal government makes.

By contrast, as indicated above, there is no consensus about the need for

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28. Part of the difficulty of comparing guns and butter may arise from the fact that polities demand different orders of satisfaction from the evaluation of the two. Regarding daycare centers or clinics, officials often feel satisfied when they can certify that services of a given quality have in fact been delivered. They seldom feel it necessary to ask whether their delivery has really enhanced the welfare of the community, the nation, or the world: they regard the question as either self-evident or as impossible to answer. But publics have come to demand more of accountings for military expenditures. After Israel’s sweeping victories in Lebanon in 1982 it was not enough to ascertain that the American-armed Israeli forces had decisively defeated the Soviet-armed Syrians and Palestinians, nor even that the campaign had vastly enhanced Israel’s short-run security. Observers asked—and regarded the question as entirely appropriate—whether it had really enhanced Israel’s long-run security.

For a discussion of assessing the benefits of welfare programs, see Alice M. Rivlin, *Systematic Thinking for Social Action* (Washington: The Brookings Institution, 1971), pp. 46–63.



a single, authoritative determination regarding the nonmilitary dimensions of security. The polity as a whole is therefore much more responsive to allegations that a given investment in, say, a commodity stockpile is “inefficient” than it is responsive to the same allegation regarding a given investment in military forces. Moreover, the alleged inefficiency is far more easily demonstrated. The situation is similar regarding measures for coping with the other problems mentioned in this paper: rapid population growth, explosive urbanization, deforestation, and the like. Here, also, the current American Administration—and much of the public—is committed to “efficient” marketplace solutions rather than to solutions involving international regimes or governmentally sponsored transfers of resources.

### *Changing the Consensus*

Because of these preconceptions regarding the appropriate role of governmental authority both in defining problems and in proposing solutions, the tendency of American political leaders to define security problems and their solutions in military terms is deeply ingrained. The image of the President as Commander in Chief is powerful. When in this role he requests additional funds for American military forces the Congress and the public are reluctant to gainsay him. When he requests funds for economic assistance to Third World governments, he is much more likely to be disputed even though he may contend that such expenditures also provide the United States with security.

Altering that pattern will require a sustained effort at public education. It is not an effort that administrations themselves are likely to undertake with any real commitment, particularly in times when the economy is straightened and when they find it difficult enough to find funds for the military goals they have set for themselves. The agents for any change in public attitudes are therefore likely to be nongovernmental.

Over the past decade or so a vast array of public interest organizations have begun to put forward alternate conceptions of national security. Nearly all are devoted to particular issues—limiting population growth, enhancing environmental quality, eradicating world hunger, protecting human rights, and the like. Some are overt lobbies expressly seeking to alter political outcomes. Others devote themselves to research and educational activities, but are equally concerned with changing governmental behavior. Jointly they have succeeded in substantially raising public awareness of the vulnerability

of the society to a variety of harms nonmilitary in nature, and of the limitations of military instruments for coping with many types of political problems.

One should not overestimate the achievements of these nongovernmental organizations, however. Awareness on the part of a substantial informed minority is one thing. Embodying it in public policy is a very much larger step. A society's consciousness changes only gradually—usually with the change of generations. The likelihood is that for the foreseeable future the American polity will continue to be much more willing to expend scarce resources on military forces than on measures to prevent or ameliorate the myriad profoundly dislocating effects of global demographic change. Yet those effects are likely to intensify with the passage of time. Problems that are manageable today may prove far less tractable in the future. And while political will and energy are focussed predominately on military solutions to the problems of national security, the nonmilitary tasks are likely to grow ever more difficult to accomplish and dangerous to neglect.