Editor’s note: The pragmatic and principled concepts in this piece are laden with prospects to change both business and society. Moreover, they are in concert with the Academy’s just launched project, The Global Reconstruction Fund. The Lovins note that “the foundation of real security is global good-citizenship, fully engaged within an interdependent world of mutual interests.” They add that “we have vast rebuilding to do to reverse the poverty, inequity, and injustice that make people feel angry, powerless, and resentful.” This is a conclusion the Academy has drawn as well.

We live in a very different world today, they note. Power now resides in three sectors: governments, corporations and civil society. Today’s new security triad comes from making others more secure, not less, whether on the scale of the village or the globe. It is rooted in conflict avoidance or prevention; bolstered by conflict resolution; and backstopped by non-provocative defense, which can reliably defeat aggression without threatening others. In the final analysis, the well-being of all people is integral to sound economic policy.

Brittle Times, RMI’s Response
by Amory B. Lovins and L. Hunter Lovins

From its inception, Rocky Mountain Institute has worked to promote a secure, prosperous and life-sustaining world. On 11 September, those goals came under attack—magnifying their importance and urgency. We can best honor the thousands of victims, citizens of over 80 nations throughout the world, by recommitting to create such a future.

A handful of people with plastic knives and box-cutters seized four airplanes and wreaked havoc. A week later, their violence was threatening to hijack much of U.S. policy. Their attack so outrages common decency as to tempt reactions that Americans would abhor in normal times—bombing civilians ruled by despots considered complicit, eroding civil liberties, blaming anyone who looks or thinks differently, rushing to military and energy choices that would be repented at leisure. But if policy simply reacts to the terrorists, they win. America and the world need rather to address root causes: to reassume global leadership in helping all people to fulfill their legitimate aspirations for a safe and decent life.

The terrorist attack elicited wide agreement on some obvious but sometimes overlooked points:

• Murdering innocent people is a supreme evil in the eyes of every religion, emphatically including Islam. This applies to terrorism—and to America's response to it.

• The perpetrators must be brought to justice under the rule of law, and with great care not to harm the innocent. Indiscriminately violent retaliation would undermine all we're fighting for. A world of justice and compassion is morally, as well as practically, better than a world of revenge. Amidst talk of technology and retribution, we need understanding and transformation.

• America's distinctive strengths flow from her diversity, freedom and tolerance—precisely the qualities that are most under attack, most precious and most vital not to impair. Terrorists succeed if they drive us to deny our values and diminish our freedoms.

• The attackers hope to provoke a jihad/crusade confrontation between America and Islam, and more broadly to inflame tensions between the powerful and the dispossessed. We defeat this goal if we instead build a new solidarity between those working to achieve a just and sustainable society and those for whom it is a distant abstraction. Terrorists are bred amid social and economic conditions that create despair and fury. To the extent that enhancing sustainability can relieve those conditions, we both do right and increase everyone’s security.

• Many people in the world are profoundly angry at America, and it would be wise to understand why. Wall Street Journal correspondent Jonathan Kwitney in his disquieting book, Endless Enemies: The Making of an Unfriendly World, chronicles scores of countries where venal, stupid or insensitive U.S. behavior, over decades, turned potential friends into foes. If we want other countries to think well of us, he concludes, we should be the kind of
people one would like to do business with and should ensure that whoever comes to power in other countries has never been shot at by an American gun. That seems simple and effective, pragmatic and principled. As we seek to understand other cultures, honor their differences and respect social goals that may diverge widely from our own, we need to hear the reasons for the anger of those who do not feel heard. As a Muslim prayer reminds us, "Praise be to the Lord of the Universe who has created us and made us into tribes and nations / That we may know each other, not that we may despise each other…And the servants of God, most gracious are those who walk on the Earth in humility, and when we address them, we say 'Peace.'"

- The United States is extremely vulnerable, not just because it's a free and open society, but also because of the fragile architecture of its complex, centralized, interdependent technical systems—gigantic pipelines, powerlines, dams, refineries, chemical and nuclear complexes. This vulnerable design makes future attacks both more probable and potentially far worse. We've long been surprised these weaknesses weren't exploited sooner and more fully. A great deal more work is needed to identify these vulnerabilities and design them out.

Consider, for example, the opportunistically renewed push for uneconomic and extraordinarily vulnerable energy technologies, such as expanded dependence on the Trans-Alaska Pipeline (RMI Solutions, Vol. 17, No. 1, Spring '01) and on nuclear power, which holds billions of curies of releasable radioactivity—rivaling the fallout from a megaton-range groundburst—upwind of many American cities. For example, The Nation (16 September) and U.S. News and World Report (17 September) report that over half of U.S. nuclear plants routinely fail basic site-security tests even when given advance notice. (They just went on maximum alert, but that doesn't mean they could repel a competent attack.) It doesn't take a crashing widebody jet to unleash their lethal inventories (though that would); a few people could do it on the ground, in some cases without entering the plant's site. Despite this threat and nuclear power's disastrous economics (see "Gone Fission," p. 11), its proponents nonetheless want, and have so far gotten, even bigger subsidies to support expansion, and seem about to win renewal of their liability exemption. In contrast, as David Lochbaum of the Union of Concerned Scientists noted, nobody is asking about terrorist threats to windmills—which also produce power sooner and cheaper.

Our 1982 Pentagon study, Brittle Power: Energy Strategy for National Security, still the definitive unclassified work, showed how accepting market verdicts could gradually, steadily, turn vulnerability into resilience. The foundation of a secure energy system is to need less energy in the first place, then to get it from sources that are inherently invulnerable because they're diverse, dispersed, renewable and mainly local. They're secure not because they're American but because of their design. Any highly centralized energy system—pipelines, nuclear plants, refineries—invites devastating attack. But invulnerable alternatives don't and can't fail on a large scale. Ignored in the current debate but available in the marketplace, they're also cheaper and more reliable. In time, they can make major energy interruptions impossible. Thus, real energy security comes from choosing the best buys first; not bailing out market failures; building a balanced portfolio of competitive demand- and supply-side investments; and preferring energy options invulnerable to cutoff by accident or malice. Happily, all these virtues coincide in the same technologies—the ones current policy disfavors. Why should some of the gravest threats to national energy security come from the energy policy of our own government?

To some extent, RMI can offer these answers. In other realms, we have only just begun to pose the questions. For example, the work that Hunter Lovins and Walter Link of the Global Academy have been doing on globalization raises some intriguing issues. As their recent paper for the United Nations pointed out, the world is profoundly different from the mental model most of us carry of an effective community of national governments. In fact, power now resides in three sectors: governments, corporations and civil society. As newspapers blare that we are at war, it is worth asking, "With whom?" Is this the first major conflict between a globalized network and a national government? In the new tri-polar world, where power resides in governments, corporations and civil society, this network of self-organized individuals empowered by satellite phones, email and FedEx to pursue their agenda aren't playing by governments' rules, but they're highly effective. Similarly, solutions to the many global challenges will only arise if collaboration between the three sectors creates new networks dedicated to finding and implementing solutions.

The question that has guided RMI's work from its inception is how can Americans, and all people, be safe and feel safe in ways that work better and cost less than present arrangements? Recent events have been called the first war of the 21st Century. Unfortunately, that "honor" goes to the many conflicts that continue to take lives around the world. Security—freedom from fear of attack or privation—is best achieved from the bottom up, not from the top down; by means that are the province of every citizen, not the monopoly of national governments; and without needing to use or threaten violence. It comes from making others more secure, not less, whether on the scale of the village or the globe. It is rooted in conflict avoidance or prevention; bolstered by conflict resolution; and
backstopped by non-provocative defense, which can reliably defeat aggression without threatening others. This new security triad from *Security Without War*—a prescient 1993 RMI book by Hal Harvey and Mike Shuman—suggests that though there is a vital role for the military professionals with whom RMI has long worked, that role is poised for profound change in an increasingly dangerous, multi-polar and polarized world.

The foundation of real security is global good-citizenship, fully engaged within an interdependent world of mutual interests. World War II arose from a resentful Germany punished for World War I. George Marshall didn't repeat that error; he strengthened and rebuilt Germany as a bulwark of democracy. We have vast rebuilding to do to reverse the poverty, inequity, and injustice that make people feel angry, powerless and resentful. As Jeff Raskin remarks, "Putting the billions recently allocated [for military strikes] into feeding the hungry, teaching the undereducated and healing the sick around the world would go further toward minimizing terrorism than anything else we could do with the money."

John Wimberly, of Western Presbyterian Church in Washington, D.C., writes of the spiritual dimensions of this challenge:

"Regardless of where one stands in the debate about the causes of wealth and poverty, Tuesday's terrorism leaves us no choice but to admit that fear, hatred, and violence increasingly define the relations between the rich and poor.

Those who don't have wealth fear that their children's lives will be worse than their own. Anger grows as they watch their loved ones die of diseases that disappeared years ago in developed nations. Leaders who foster hatred of the developed nations suddenly sound reasonable.

Those who have wealth grow increasingly fearful of the masses of poor people. They become resentful that their wealth does not give them the freedom and safety they once assumed it would create. Leaders who tell them that the poor are a threat to their well-being suddenly sound reasonable.

It is a recipe for madness. A blueprint for mutual self-destruction. Where does it end? The world's major religions all agree that it is the responsibility of those who have to help those who do not ... What we do or don't do with our money is an issue of profound spiritual significance. The strong are supposed to help the weak.

And isn't the well-being of others an important aspect of good economic policy as well? Impoverished people don't buy products. Uneducated people don't constitute a good workforce. Strong economies produce jobs that can enable the poor to build a better future ... Long-term economic self-interest requires attention to the needs of others.

If both economists and the world's religions agree that self-interest and the interest of all are inseparably intertwined, what is the problem? The problem is fear, fear that morphs into hostility.

The opposite of fear is faith. Our daily lives are built on hundreds of large and small acts of faith. We have faith that when we get on a plane, it will take us to the scheduled destination; that when we sit in an office, we are safe; that the sun will set tonight and rise tomorrow.

What is at stake today is whether we will live lives of fear or lives of faith. We live in a national and personal moment of truth."

We all have much work to do.

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