



THE WOODS HOLE RESEARCH CENTER

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Global Science and Government in the New Millennium

by George M. Woodwell

Acceptance speech delivered at the awarding of the 12th Volvo Environment Prize, the Opera House, Göteborg, Sweden, October 30, 2001.

I am, of course, greatly honored and pleased to have this chance to join you under such gracious circumstances. But I am really here to enlist some revolutionaries to take over a big job in changing the world. Let me explain.

First, I want to take a moment to celebrate the progress we have made in science and conservation and to suggest that, despite the recent blow to all of civilization, we can make this moment a new and exciting and highly promising departure for the world. The new departure has two elements that are mutually reinforcing and dependent: an immediate relaxation and ultimate elimination of dependence on oil and other fossil fuels; and a universal effort through governments to restore the physical, chemical and biotic integrity of the biosphere, the only human habitat. Ambitious? Yes. Impossible? No. Difficult, but essential, absolutely essential.

The barbarism of the 11th of September puts all in a new light and adds urgency to the reappraisal and to the rekindling of the hope of progress in human affairs, despite an equally barbaric, hasty and, we hope, momentary and final, resort to war. The reaction to September 11th is a refreshing review and renewal of commitment to all that we hold dear, even though we cannot, and do not, ignore the heavy shadow of uncertainty cast over civilization itself by an evil whose details have forever seared the memories of a generation and whose malevolency appears to know no bounds.

I have read much in recent weeks exploring how we have arrived at this moment and what is now to be done to restore, if possible at all, confidence in personal security. The essays I have seen have ranged from political drivel about support for a president of the U.S. as he continues to utter the bellicose phrases of comic-book cowboys from Texas to thoughtful historical reviews of the United States' blunders in international affairs in search of both insights from history and, I suppose, a shred of justification, somewhere. There is no justification, none. There are many mistakes and contradictions in our history but no shred of reason can justify such an unimaginably brutal attack on all of civilization. And no one and no culture is flattered that, at this late stage in the evolution of global human affairs on an earth already threatened as a human habitat, the response to a clever and effective band of suicidal thugs so few and diffuse as to have escaped the largest and best financed spy system ever invented, must be something as crude and blunt and indiscriminant as bombs and missiles. The earth is too small, and we all should be too experienced and wise for this nonsense, which screams for an early reappraisal.

But despite the bleakness of the moment and the obvious damage to the fragile eggshell of civilization, the horror of September 11th has unified the world for at least a moment to a degree unimaginable on September 10th. Suddenly, all that we of the western world hold dear--family, friends, freedom to travel, to live under law in equity with neighbors and with freedom from fear, to hold a job, to look to a future, to sustain a benevolent governmental system, and to work on ways to sustain life itself--is threatened. Suddenly it is clear that civilization will prevail only as a result of unified purpose in providing the same security we have enjoyed in the western world to all the nations and among all as individuals. Suddenly, for a moment at least, we have a new departure for the world, as all find security in unity and mutual support.



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Grim though it is, the tragedy has brought insights and opportunity. The moment is rare and strangely promising, despite the weight of the barbarism so fresh in every mind. Contrary to the wishes of the far right, war does not trump all.

Tony Blair captured the terror and the pathos and the doubts of leadership as well as the challenge and opportunity in early October. He addressed the British Labour Party to shout out not only an aggressive response to terrorism and its supporters, but also, potentially far more enduring and important, to advance a political agenda for the new millennium designed to acknowledge and correct the gross disparities in human welfare around the world, the crisis of Africa, the urgency of economic reform to reverse the polarization of wealth, and to confirm the absolute necessity for ratification of the Kyoto Protocol: "We will implement it and call upon all other nations to do so." He was referring, of course, to the U.S.'s irresponsible attempt to reject the Protocol, so carefully negotiated in 1997 to accommodate U.S. interests.

In the uncertain and frightening political climate of the moment, our concerns about global ecology and the human-caused disruption of climate and destabilization of environment may seem trivial to some. War trumps all in human affairs and science and environment become trifles to be ignored, until the important matters have been addressed. At least that is the way it has been in the past, is now on the front pages of the morning paper, and seems to be in the eyes of conspicuous politicians. But we are in a new world, new not only in its potential for global terrorism using modern tools against the very culture that developed and built them, but also new in shrunken size, in scale of human potential for good and ill, in the speed and flow of information, in concepts of right and wrong, and in concepts of government, and in the hope and expectations of the public and of our political leadership as well as in the collapse of space and time. We have watched the tragic consequences of the hijacking of our airliners for murderous purpose and we are clear that there are no limits on the evil aimed our way. While we cannot allow that event, and the obvious threat of more to come, to pass unchallenged, neither can we allow our response to amplify the vandals' destruction. Our reaction must not hijack the planet into a suicidal plunge into global war, nor, into a suicidal plunge of only slightly longer duration by deflecting or stopping progress on the global threats of climatic disruption and biotic impoverishment.

Our concern is now classical, that is, long standing and consistent: climatic disruption through human-caused changes in the composition of the atmosphere first recognized in Sweden more than a century ago by distinguished scientist, Svante Arrhenius. The basis is rooted in science that has a century and more of research behind it. And there are, despite persistent critics and neo-expert critics, abundant recent data confirming the transitions and abundant new insights into the working of the global bioclimatic system.

Time is short. The world is already at levels of heat-trapping gases that will produce effects outside the realm of predictability and therefore outside the realm of acceptability or reasonable risk. The global transition of the 11th of September only makes the issue more urgent, not as some would have it, less.

That is the objective: a massive shift away from fossil fuels, toward locally available renewable sources of energy, and toward the restoration of the functional integrity of land and water as essential to continued human habitation of the biosphere. Both are essential to human security and to the independence, self-sufficiency and security of individuals and nations.



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The transition need not be immediate; it cannot be. It requires public leadership and, ultimately, governmental responsibility and support. But the opportunity to make that transition is here. It can start with a young and vigorous scientific community, just as the Framework Convention on Climate Change, one of the most successful such treaties ever, started with some scientific revolutionaries who held meetings around the world and ultimately persuaded the United Nations General Assembly to proceed with drafting a treaty which is now the law of the world. We need a new set of revolutionaries who will bring an immediate 20% reduction in use of fossil fuels nationally by the United States and other industrialized nations and who will advance the restoration of the functional integrity of the biosphere as the local, national and global responsibility of this generation and essential to ridding the world of terrorism in all its forms.

All have been left reeling and sickened by recent events and the continued march of uncertain military and political sequelae. While there is an overwhelming sense that we have experienced a major transition in the globalization of the human endeavor, the urgency of the environmental transition has become only more acute. Its capture by Tony Blair stands as a major opportunity to the scientific and political communities to advance a genuine revolution in the human undertaking, replacing what Bill McDonough, a brilliant U.S. architect currently building a campus for the Woods Hole Research Center, calls a strategy of failure based on the corruption and impoverishment of the human habitat with a strategy of hope based on the biosphere's potentially infinite capacity for renewal and self repair. Do I have any revolutionaries?