

Forthcoming in Conservation Biology (August, 2007) with responses by Bill Becker, Gary Hart and Gus Speth.

One Hundred Days of Climate Action

David W. Orr*

“Here’s the inconvenient truth: We have not even begun to be serious about the costs, the effort and the scale of change that will be required to shift our country, and eventually the world to a largely emissions-free energy infrastructure over the next 50 years.”

Thomas Friedman (2007)

The next President of the United States will face unprecedented challenges, among which is the looming threat of rapid climate destabilization. Given what is known about the pace of climate change, the President will have little or no margin for error and must act quickly, decisively, and wisely. Such was the conclusion of a small group convened at Wingspread in June of 2006 to discuss leadership and sustainability. Our conveners, Ray Anderson, Jonathan Lash, and Bill Becker intended to restart the dialogue begun in the 1990’s with the President’s Council on Sustainable Development. One of the outcomes of the meeting was the formation of an effort to define the first steps that must be taken by the new administration in 2009 to create and implement a climate action plan adequate to the emergency ahead. We chose to focus on the first hundred days to shed light on the critical importance of the first steps in a new direction. One model for action is that provided by the first one hundred days of the Roosevelt administration in 1933.

The phrase “the first hundred days” was first prominently used to mark the time between Napoleon’s escape from Elba and his final defeat at Waterloo in 1815. President Franklin Roosevelt used the phrase to commemorate the period between the opening of the 73rd Congress on March 9th of 1933 and its closing on June 17th (Alter, 2006, 273). Roosevelt assumed the Presidency at the height of the Depression when the

unemployment rate was twenty-five percent—sixteen million people were unemployed and an equal number had only part time work. The gross national product was half of what it had been four years before, the banking system was on the verge of collapse, the future of democracy in America looked bleak, and Fascism was on the march in Europe and the Far East. In those first 100 days, in historian Arthur Schlesinger’s words,

Roosevelt:

sent fifteen messages to Congress, guided fifteen major laws to enactment, delivered ten speeches, held press conferences and cabinet meetings twice a week, conducted talks with foreign heads of state, sponsored an international conference, made all the major decisions in domestic and foreign policy, and never displayed fright or panic and rarely even bad temper (Schlesinger, 1958, 21).

Never before or since has a President displayed a similar energy or such a sure grasp of the realities facing the country, or a deeper understanding of the American people.

Roosevelt aimed first to overcome rampant fear and give people hope, restore confidence in government, and avoid economic collapse. His bearing and personality, honed by the struggle to overcome the effects of crippling polio, were well suited to the challenge. His energy, charm, and political skills were adapted to conditions of a crisis without precedent in U.S. history. He was the first President to travel extensively by airplane and the first to use radio as a tool of mass communication. His approach was more experimental than any previous president, and, arguably, more so than any since. In a rare pre-election glimpse of his Presidency Roosevelt told a Georgia audience that “The country needs and . . . demands bold, persistent experimentation. It is common sense to

take a method and try it. If it fails, admit it frankly and try another. But above all, try something.” Few took his words seriously. Roosevelt was complex and paradoxical man but his politics were pragmatic, not ideological. The measures taken in those first hundred days, however energetic, were not particularly successful. Nor did Roosevelt’s New Deal, for all that it accomplished, end the Depression. The Second World War did that. What Roosevelt did do, however, was to restore confidence in government and particularly in the capacity of democracy to confront serious problems.

Beginning on January 20, 2009 the next President of the United States will face challenges that will dwarf even those that faced Roosevelt in March of 1933. The Middle East, whatever has happened in Iraq in the meantime, will continue to fester or worse. Many experts believe that terrorism in the U.S. aimed at the grid, or the internet, or cities, ports, or nuclear power plants is virtually certain. The Congressional Budget Office predicts that the U.S. government debt by 2050 will be larger than the current gross world product. Decaying infrastructure, a national health care emergency, and a badly fractured political system among other things will further constrain the choices the President can make while consuming political attention, energy, and money. And looming in the not-too-distant future, however, is a global emergency the likes of which the world has never before faced.

The fourth report from the Intergovernmental Panel on Climate Change (2007), the Stern Review (2007), and recent scientific research indicates that the future will be characterized by:

- higher temperatures with greater chance of
- prolonged drought and severe heat waves *and* larger rain events
- unexpectedly rapid melting of polar and Greenland ice sheets
- rising sea levels—by perhaps as much as five to six meters

- changing disease patterns
- disappearance of forests and entire ecosystems
- cascading loss of biodiversity
- larger and probably more frequent cyclonic events
- increasing ocean acidification, effecting the rate of carbon uptake.

These trends are unavoidable given our past emission of heat-trapping gases of which carbon is the most abundant and therefore, the most serious. The climate system has a lag of several decades between the release of heat-trapping gases and climate-driven weather events that make the headlines. Hurricane Katrina, for example, was amplified from a class one storm to a class five event by warmer sea temperatures caused by carbon released decades before. Similarly, the weather headlines of the future will be traceable to carbon being emitted today. In short, we are now committed to a substantial warming of the Earth but, as far as is known, we have not yet crossed the threshold of runaway climate change which would destroy civilization. We still have time to avoid the worst of what could be ahead but it would be smart to assume that we have no time to waste. No one knows for certain what a “safe” threshold for atmospheric CO₂ might be. The background rate for hundreds of thousands and perhaps millions of years was < 300 ppm. According to the Stern report the sum of CO₂ and six other greenhouse gases measured in carbon dioxide equivalent units is presently at 430 CO_{2e}, which is two-thirds higher than the background rate and growing yearly by another ~2.5ppm. Delay in stabilizing and reducing levels of CO₂ will exact a “procrastination penalty” that mounts steadily until we cross a point of no return. In other words it will be far cheaper to act now than at some later date by which time effective action of any kind will be difficult or impossible. Plainly we are courting global disaster or as scientist James Hansen puts it we are uncomfortably close to creating a “different planet,” one not much to our liking.

While the various challenges to the next administration can be described separately, they will be experienced as if braided into a single “long emergency.”¹ Each will tend to amplify the others producing novel and unpredictable but predictably nasty results. The challenge posed by the deterioration of planetary ecosystems described in the recent Millennium Ecosystem Assessment Report (2005) will be worsened by higher temperatures, bigger storms, and changing rainfall brought on by climate change. The loss of soils and species diversity, and the impairment of ecological functions will in various places reduce the capacity of Earth to support life and sequester carbon. And there are thresholds beyond which the capacity of the Earth to support life will be severely impaired. While the warnings of ecological surprises (i.e. non linear ecological changes) are no less real than those of impending climate change, they are harder to describe and dramatize and therefore harder for policy makers and the public to comprehend. And the long emergency will create conditions in which desperate people may well do desperate things thereby diverting government attention and resources to relieving symptoms not to solving underlying ecological causes.

Like Roosevelt, the next President of the U.S. will need to restore hope, rebuild confidence in government and provide the leadership necessary to bring order out of our present divisions. Crafting good policy, i.e. an integrated action plan for both climate mitigation and adaptation, adequate to the long emergency will be politically difficult, but not impossible. But in Tom Friedman’s words quoted at the outset: “We have not even begun to be serious about the costs, the effort and scale of change that will be required to shift our country, and eventually the world, to a largely emissions-free energy

¹ The phrase is taken from James Howard Kunstler’s book of the same title.

infrastructure over the next 50 years” (2007, 42). Immediately following the election, the President-elect will face many important choices ten of which stand out.

1. First, the President must decide where to place climate policy in the administration’s overall agenda. If it is regarded as just another problem on a long list of problems, the chances of failure on all counts are much greater. Climate policy in that case would compete for resources, funding, and attention with many other issues and the crisis *de jour*. If a climate action plan, however, is regarded as the linchpin connecting other issues including policies for security, economy, environment, and justice, the road ahead will be a great deal easier. Crucial in this decision is the selection of an experienced and savvy transition team that is capable of developing a coherent and cogent approach for rapid action to address climate change as the keystone of the larger agenda. Among other things, the members of the transition team must be well versed in the science of climate change as well as in the various policy choices and their likely economic consequences and political prospects.

2. A great deal will depend on the quality of Presidential appointments to Cabinet positions and to the roughly 7,000 other political positions in the Federal government (including 400-500 members of the White House staff and 1,200-1,300 in the Executive Office of the President). The President-elect and the transition group must identify unusually talented potential appointees who can quickly gain public confidence and command the machinery of government and who share a commitment to act decisively to meet the challenges posed by climate change. The ability to implement climate policy depends in large part on their intellect, experience, energy, creativity, character, and personal skills. Not the least of the challenges that will confront Presidential appointees is

that of rebuilding morale and capacity in many government departments which has been badly eroded in recent years.

3. The framing of the issue in the inaugural address presents a third choice for the President. In his inaugural address Roosevelt, the master psychologist, aimed to calm public fears: “The only thing we have to fear is fear itself.” But that was a public at the edge of desperation. The public in 2009 will be less fearful on the whole but perhaps more confused about many things including what to do about climate change. Nonetheless, a significant majority will likely have reached the “tipping point” of awareness on the issue, but will probably not have grasped the seriousness of climate change or the kind of choices that we face. The President can choose between a Churchillian “I have nothing to offer but blood, toil, tears, and sweat,” at one end of the spectrum or sunny optimism at the other. Alternatively, the President might appeal to the better angels of our nature framing the issue as one of intergenerational fairness and morality having to do with the right of our posterity to life, liberty, and property guaranteed in the Constitution to the living, but not yet to its posterity. Whatever its specific content, the inaugural address ought to rise above the divisions of right and left, liberal and conservative, stake out common ground, and present a vision of higher ground beyond.

4. The White House communications strategy thereafter presents a fourth set of choices. Teddy Roosevelt called it the “Bully Pulpit” and every President has used the White House to advance a particular agenda in a particular fashion. His cousin, Franklin, used “fireside chats” over the radio with extraordinary results. Whatever the medium—television, radio, press conferences, personal appearances, internet, or public addresses—

the President must craft a communications strategy that rapidly educates the public about the science of climate change, the risks of a delayed response, and show a plausible way forward consonant with economic advantage as well as our national heritage. The goal is to create a broad and stable coalition around the national interest in climate stability that protects our long-term security and prosperity and distributes the costs and benefits fairly. And to ensure that the public is adequately informed, not misled and deliberately confused, the President should direct the Federal Communications Commission, among other things, to reinstate the “fair and balanced” standard necessary to hold a license to broadcast over the public airwaves.

5. The fifth set of choices has to do specifically with the formulation of a coherent energy policy that charts a course in which we rapidly remove carbon from the U.S. energy system. The President must cut through a bewildering set of policy choices that range from free market solutions to full use of the police power of the state to mandate changes. The administration can initiate the dialogue but policy details will be hammered out between the White House and Congress and untold numbers of lobbyists. Two issues will be fundamental to the policy process. Assuming Congress has not acted beforehand, the first is whether the President opts for taxes on Carbon as some prefer (Zakaria, 2007) or a cap and trade system (Chameides and Oppenheimer, 2007) or some combination of the two. Each has its strengths and liabilities, and each has different constituencies. Whatever the choice, the policy should be crafted to be flexible and made more stringent as evidence of actual effectiveness in reducing carbon dictates. The second has to do with the content of the policy and whether it emphasizes efficiency and renewables (ASES, 2007) and/or “hard” options such as coal with carbon sequestration

(MIT, 2007) and nuclear power. But we have neither the time nor the money for mistakes or second best choices. Accordingly, the President must set the framework for a rational dialogue about energy policy in which all options are compared on a level playing field that includes criteria such as:

1. Carbon eliminated per dollar spent
2. Energy return on investment
3. The speed with which options can be deployed
4. Near-term technical feasibility
5. Resilience of the energy system to withstand malfeasance, acts of God, and human error.

And good choices will not simply switch problems, say, increased energy production but at the price of public safety and health.

The President has the power to define the larger political topography on which climate policy is debated. It is possible to craft policies that join conservatives and liberals in ways that are transparent, pragmatic, and fair. The outlines of consensus may be emerging around an energy policy that would:

1. Reduce our dependence on imported fuels
2. Minimize our vulnerability to political conflicts in unstable parts of the world
3. Reduce our balance of payments deficit and money going to fund terrorist groups
4. Lower the total costs of energy, notably those costs that are now externalized
5. Generate better technology and a better economy
6. Create good and stable jobs
7. Improve air and water quality
8. Protect public health
9. Lower health costs
10. Reduce the influence of entrenched energy industries on U.S. politics.

The right energy policy, in other words, should solve many different problems including that of climate change and national security while providing other collateral benefits. The

President will need to sell such a vision in order to build a majority coalition that crosses old lines of left and right joining people of faith, labor, farmers, minorities, business leaders, intellectuals, and the financial community.

6. To implement a climate policy consistently across all aspects of government, the President must weigh various options for expanding the capacity to coordinate actions of Federal Departments and agencies that often work at cross purposes. Consideration should also be given to restoring the capacity of the Federal government to assess technologies that once existed in the Office of Technology Assessment (terminated in 1994) and to expand the foresight capacity of government in other novel and creative ways. The President should also take steps to enhance the capacity of the Federal government to respond to climate driven disasters. The failure of the Federal response to the devastation caused by Hurricane Katrina is a textbook example of what not to do. In the conditions of the long emergency we must imagine a future in which hurricanes, large storms, flood, fire, drought, and acts of terrorism may become the norm. For that reason the capacity of Federal government to respond to emergencies must be much more robust and effective, not just for occasional events, but multiple and perhaps frequent events. Finally, the President must act take steps to rebuild and enhance the integrity and capacity of science based agencies (such as NASA, NOAA, NREL) that are essential to climate research and our capacity to foresee and forestall.

7. The policy process has been badly corrupted by the growing power of money and the army of K Street lobbyists. Despite recent and voluminous evidence of influence peddling and scandal, their power is scarcely diminished and poses a significant threat to any farsighted and effective climate and energy policy. In the first one hundred days the

President would be wise to initiate a longer-term effort to reign in the power of money in politics. While there is no shortage of ideas on how to do so, the best solution would be to remove money from the electoral process once and for all by publicly financing elections to national offices.

8. In the first hundred days the President must take bold steps to rejoin the international community on climate, security, and economic issues. There is no prospect of stabilizing climate without a coordinated global effort that deals systematically with carbon emissions, poverty, and security (Speth, 2004). The world is waiting for U.S. leadership to help create a global partnership on climate policy. Given the disparity of historic and present carbon emissions, the United States has a special obligation to set the right example and take the lead. But no one should assume that the present hostility toward the United States will disappear without a significant and sustained effort over many years.

9. Federal action on climate change is necessary but not sufficient. It must be matched by mitigation and adaptation at state and local levels. In the first one hundred days the next President should create a national commission on local responses to climate change focused on the steps required to build locally and regionally resilient economies, food systems, and distributed energy networks that would enhance the capacity to withstand the disruptions of climate change. Distributed energy in the form of widely disbursed solar and wind technology would buffer communities from supply interruptions, failure of the electrical grid, and the shock of sudden price increases. Similarly, the resuscitation of local agriculture would reduce dependence on long-distance transport from distant suppliers.

Roosevelt eventually sponsored the creation of the Civilian Conservation Corps and put the unemployed and youth to work building roads, schools, public buildings, and restoring the public lands. The model is a good one for the next administration. The energy and creativity of young people, trained in renewable energy technologies, could be harnessed to build wind farms, install solar technologies, and help to improve energy efficiency in low income communities.

10. Presidential leadership has many intangibles. The President has the power to issue executive orders that effect government purchasing and facilities management among other things. Presidents have the power to initiate change in both statutory and regulatory law. But the ultimate power of the President, as political scientist, Richard Neustadt said many years ago, is the power to persuade. The next President will have both the obligation and the opportunity to persuade Americans to move resolutely, boldly, and quickly toward a far better future than that in prospect. If this opportunity is lost, there may be no other.

The specifics and technicalities of governance aside, there are the intangibles of persuasion and wise leadership of the sort we associate with the best of our Presidents and the wisest of our leaders. In this higher sense leadership is not just the thoughtful exercise of power, but a manifestation of a higher spirit. To that end, the next President must change the spirit of this country exorcising the fears that have manifested in demons that haunt our nights and darken our days. In the light of higher purpose and clearer vision we might once again be a great, not merely powerful, nation.

* * * * *

One hundred days is not much time to cause a significant shift in our national course, but shift course we must. We have ample reason to believe that we have only a few years, maybe a decade or two, before we are fully committed to a global catastrophe. To avert that outcome, Presidential leadership of the most extraordinary sort will be essential to lead the country and the world in other and better directions. Before taking office the next President will need to have mastered the science of climate change sufficiently to understand the stakes involved and have summoned the clarity of mind and depth of will to act decisively and boldly. The President will need a long list of qualities found in our greatest Presidents: judgment, fortitude, wisdom, eloquence, vigor, courage, political skill, honesty, wit, perspective, and maybe even a sense of humor. The time for denial, half-measures, and political expediency has been spent. The time to act is now. Hopefully, one day those who look back on our time will say, as Churchill once said of his, that this was their finest hour.

Sources

Alter, Jonathan. 2006. *The Defining Moment: FDR's Hundred Days and the Triumph of Hope*. New York: Simon & Schuster.

Chameides, W., Oppenheimer, M. 2007. Carbon Trading Over Taxes. *Science* (23 March, 2007) vol. 315., p. 1670

Katzer, J. et al., 2007. *The Future of Coal: An Interdisciplinary MIT Study*. Cambridge: MIT Press

Kutscher, C, ed., 2007. *Tackling Climate Change in the U.S.*, Boulder, CO: American Solar Energy Association.

Friedman, J., 2007. The Power of Green. *New York Times Magazine* (April 15, 2007). pp. 40-51; 67-71.

Intergovernmental Panel on Climate Change, 2007. The Fourth Report. www.ipcc.org (Forthcoming from Cambridge University Press, 2007).

Schlesinger, A.O., 1958/1965. *The Age of Roosevelt: The Coming of the New Deal*. Boston: Houghton Mifflin.

Speth, G., 2004. *Red Sky at Morning*. New Haven: Yale University Press.

Stern, Nicholas, 2007. *The Economics of Climate Change*. Cambridge: Cambridge University Press.

Zakaria, F., 2007. The Case for a Global Carbon Tax. *Newsweek* (April 16, 2007) pp. 94-96.

For further information on the Presidential Climate Action Project go

www.climateactionproject.com

*Paul Sears Distinguished Professor of Environmental Studies and Politics,
Oberlin College