

EARTH DAY 2020: WILL WE  
HAVE A HEALTHIER ENVIRONMENT?

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Next month we're celebrating the 20th anniversary of Earth Day and I thought I would use my time with you tonight to talk about the prospects for the environment on the 50th anniversary of Earth Day, 30 years from now. In thinking about what our environment and our cities are going to be like 30 years from today, cities like Boulder, small university cities, I thought I would read you something which is a description of such a city:

The city is arguably the country's most picturesque, a university town with Renaissance stone buildings and gothic cathedrals. But it is also sited near an area, which over the past 30 years, has increasingly become an industrialized area. The city is dying. Antiquated steel mills and chemical factories have left the air as gray as an old sock, acid rain eats the faces off the stone sculptures on the university buildings. Pollution is eating at humans too. The soil is so contaminated by tons of sulphur dioxide and carbon monoxide that many suburbs in the area, entire villages have been condemned. Lead contamination in vegetables and fruits is ten times higher than the limit set by the World Health Organization. Infant mortality rates are four

times higher than the national average. Life expectancy has been dropping every year for a decade. Lung and breast cancer rates climb. Among children, chronic bronchitis is endemic. On bad days, local doctors say, the city ambulances work all day rescuing children who are suffocating in the toxic breezes.

A physician at the university's Institute of Medical Biochemistry, who is also vice-president of the local ecology club, has known for years that a pharmaceutical factory in her neighborhood was emitting toxic solvents. "Every night we lie in bed and smell the chemicals," she says, "acetone, methanol and hydrochloric acid." Her husband died recently of cancer that she believes was caused, in part, by pollution. Her granddaughter is also ill. She has noticed changes over the past 10 years in the neighborhood trees and plants as well. She keeps twigs snipped from shrubs in a jar of preservative on her desk. The leaves are stunted and strangely shaped like the canary in a mine shaft whose

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death warns miners of the presence of lethal gas. The leaves are evidence of deep ecological damage.

Well, that's not a hypothetical description of Boulder 30 years from now. It's a description of Cracow, Poland, today which appeared on the front page of the Washington Post this morning. I thought it was interesting when I read it on the plane coming out here, because one of the questions that we have to ask is whether Boulder and other cities in this country may be a lot more like that on the 50th anniversary of Earth Day.

With all the attention that environmental issues have gotten in the last few years, it's important to remember that the environmental movement as a broad-based citizens' movement is very young, starting with Rachel Carson's *Silent Spring*, published in 1963 and the student activism of the late 60s, and Earth Day in 1970. If you asked people about the environmental movement on Earth Day 1970, they wouldn't have had any idea what you were talking about. And yet I think that as much as the movement has grown, and we've made progress, the truth of the matter is that for most of the last 20 years, environmental protection has been seen primarily as a luxury, an amenity, something we could afford a little bit of because we're a wealthy society -- as long as it doesn't get in the way of prosperity and economic growth.

My perception is that in the last 20 months that's really changed very radically. Beginning in June of 1988 with the discovery of an ozone hole over Antarctica, publicity about global greenhouse warming, concern about tropical deforestation, drought, fires in the Amazon, fires in Yellowstone, needles on the beaches, ocean pollution, the saga of the garbage barge (a tremendously important

visual image), forest death, acid rain, and then the Exxon-Valdez spill, followed by spills in the Antarctic and spills off the California beaches. We've had worsening air in our own cities, and in the last 6 months with revolution in eastern Europe and the Soviet Union, the beginning of the realization that cities and suburbs and whole areas of eastern Europe and Russia are dying an environmental death. That's all happened in 20 months, and my sense is that this has made a tremendous impact on public opinion, both in this country and around the world.

I think people are beginning to perceive that we are facing really fundamental threats: threats to the integrity of our atmosphere, from greenhouse gasses and acid rain and air pollution; threats to the integrity of the gene-pool, from deforestation and species loss; threats to the integrity of our bodies, from the contamination of the food we eat and the water we drink. What's happened in the last 20 months is that finally people are beginning to think about environmental protection not as a luxury but a necessity, as a survival issue, a national security issue. And certainly events in eastern Europe have accelerated that trend. We have spent hundreds of billions of dollars in the past 40 years to try to avoid nuclear war, and now we realize that global holocaust is by no means inevitable. We can avoid a nuclear holocaust. But it may be that if we don't change the way we manufacture products and generate energy and get rid of our waste that the degradation of the natural systems of this planet, to the point where we as a species can't live here anymore in 50 or 100 years, may indeed be inevitable. Increasingly, people are beginning to look at the maintenance of nature and natural processes and natural systems, the integrity of oceans and atmosphere and soil, and sustainable development, as the most important issues facing mankind on the earth, and perhaps issues that will determine whether we

continue to live here as a species.

Despite this heightened consciousness, the environmental problems that we face today, looking 30 years ahead, are dramatically different and more complex than the problems that we faced or thought we faced in 1970. The issues of the 1960s which formed our consciousness on Earth Day 1970 were sewage and smog. We wanted to get particulates and smog out of urban air. We wanted to process raw sewage that was being dumped into rivers. We wanted to get rid of a few chemicals like DDT and PCB and lead in gasoline and lead in paint. That was the mentality of the late 1960s--a few specific discrete problems or campaigns that were subject to a fairly simplistic strategy for cleanup.

And we did pretty well on some of those things. Where we could eliminate a chemical or a toxic which had an individual impact on health, or where we could spend billions of dollars building sewage treatment plants, we've done pretty well. We have a lot of cleaner rivers, lead content in blood is way down, we've gotten rid of DDT pretty much. So we've had limited success on some fronts. But what we're looking at for the next 30 years is very very different. And I thought I would try to describe to you what I see as the 4 or 5 major trends, or major differences in what we're looking at today compared to what we were looking at on Earth Day in 1970.

First, we've moved already from the release of modest quantities of pollutants and waste to the release of huge quantities. World population has tripled since 1900, doubled since 1950. That alone would produce enormous quantities of waste and pollution. Gross world product, perhaps up twenty-fold in this century, fossil fuel use up ten-fold. Fossil fuel use in this country has doubled since 1950. All this has resulted in

massive amounts of garbage, and hazardous waste, and of course, tremendous acceleration of the destruction of natural habitat. So just the magnitude of the waste and pollution we're putting out there, even since 1950 or 1970, has changed a lot.

Second, there's been a tremendous increase in the toxicity of what we're putting out there. It is very hard to remember that not only the nuclear industry, but the whole synthetic organic chemical industry, is almost entirely a post-World War II phenomenon. It just didn't exist in the 1930s and 1940s, and now we have thousands of synthetic chemicals that are highly toxic even in the most minute quantities, and which accumulate either in the atmosphere or biological systems. Between 1950 and 1985, U.S. production of synthetic chemicals increased from 24 billion to 225 billion pounds. Today we are using more than 63,000 chemical substances. 1500 new ones are coming on the market every year, and of the 63,000 chemical substances, 35,000 are classified as either known to be harmful, or potentially harmful to human health. And probably 34,500 of those chemicals we know virtually nothing about in terms of long-term impacts.

Third, the problems we face today are interactive problems. They aren't just the impact of DDT or PCB on a biological organism or on human health. They really have to do with the relationship between different kinds of chemicals and different kinds of processes. Some of you who have followed the acid rain controversy during the years when the Reagan Administration said that this was something that needed a great deal more study, will appreciate the fact that we still know very little about how acid rain works on forest systems. But one of the things we're beginning to learn is that the combination of acid deposition, heavy metals in the soil, and ozone (as well as certain other airborne gasses, including carbon

monoxide) together have impacts on forests and soils that are considerably more deleterious than the sum of the individual impacts on these systems. Greenhouse warming is another example. CFC and other gasses interact in ways in the atmosphere that we don't fully understand and produce a doubling or a quadrupling of the greenhouse effect.

Fourth, in 1970 on Earth Day we looked at our environmental problems as domestic problems, and problems of the developed world. Now we're aware that these problems are perhaps even more important in the Third World. In some ways the developing world has much greater actual pollution problems, as well as potential pollution problems, than the developed countries.

And finally, I think we've gone from realizing that we have to deal with local effects to having to deal with global effects. And that's not just acid rain from Ohio's power plants impacting Canada's forests, or the destruction of tropical rainforests making a difference to species which also come up into the United States. It means that we have a tremendous stake in the decisions that China makes for its entire industrial development strategy, because if it depends for electrification and a railroad system on the development of its deposits of coal, then the impact of release of carbon dioxide from the development of those coal deposits in China over the next 30 years will drown out every conceivable decrease in the release of carbon dioxide and greenhouse gasses that the rest of the world can make. So our stake in what China does with its coal is an example of the kind of interactive problem that we face looking 30 years ahead today.

A couple of nights ago I took my boys to a new movie showing NASA footage of the first space flight, and I really marveled at

the technology that managed to get these people there. I remember very well watching the first man land on the moon. I was in a bar in east Harlem. Nobody else in the bar believed that this was actually happening. They thought it was all fiction. There were maybe 30 people saying, "Oh this isn't happening. This is some kind of a program." I was the only one who appreciated this was for real. And I marveled at the technology remembering back, and yet that kind of research and that kind of technology, which has not been put into environmental problems over the last 20 years, leaves us with an enormous gap. The space program scientists can tell you the distance from the surface of the earth at any point on the earth to any point on the moon to within an inch, but scientists cannot tell us to the nearest order of magnitude how many species live on this earth with us. We don't even know whether the number is closer to 5 million or 50 million.

So that lack of knowledge and understanding, I think, is one of the major challenges that we face as we look ahead 20 or 30 years into the future. And when you think about the problems we face, these challenges are mind-boggling. If we're going to solve problems of pollution and loss of bio-diversity and atmospheric degradation and do it on an international basis in 20 or 30 years, how are we going to do that? It's certainly going to take more than tightening a few U.S. laws and some tailpipe standards here and some no net loss of wetlands policy there, and a little more foreign aid to India and Africa. That's not even scratching the surface. What do we have to do?

I recently tried to think about -- it's really a visioning process I guess you would say -- think about what would have to be in place if we were to succeed in our goals of advancing environmental protection over the next 30 or 40 years so that in the year 2020

we could have anything we wanted. If we were wildly successful, what would the world look like, what do we have to do, what do we really have to do in the next 30 years? And I made a list of 10 things that I think, if we're going to succeed, have to be in place or at least well on the road to being accomplished 30 years from now.

First, population policy is going to have to be the number one issue in international affairs. It will have to be at the forefront of all international relations and foreign policy of every country in the world, because at the current rate of expansion (the population having doubled from 2.5 billion to 5 billion since 1950) it's going to double again to 10 billion in about 40 years. The earth probably cannot sustain that kind of a population with a decreasing soil base, decreasing fresh water, decreasing forests, decreasing productive agricultural land, at least not with anything near the quality of life that we enjoy in any of the developed countries. So the first need is moving toward stabilizing world population over the next 30 years at some figure like 7 1/2, 8, or 8 1/2 billion people.

Second, sustainable development programs are probably going to have to be an integral part of everybody's budgets, trade programs and environmental regulation. Furthermore, Third World countries will be demanding and getting sustainable development technologies, and nothing else but sustainable development technologies, from the developed countries. Power grids in almost every country in the world are going to have to be based primarily on alternative fuels, renewable and sustainable fuels, much higher efficiency than we enjoy today, and tremendous new advances in energy conservation. And everything we do in generating power on the whole planet is going to have to be keyed to reducing greenhouse gas emissions. Agricultural and

forestry methods will have to be totally revised to be based on environmental precepts. It is really startling that since World War II we have increased the use of pesticides in American agriculture by a figure between 15 and 20 times what we were using in the late 40s, but the amount of crops lost to pests has gone up. So we have been going in the wrong direction now for 40 years and we have to turn that around in 30 years.

Metropolitan governments are going to have to have functioning plans to preserve natural resources, air, water, and open space in urban and suburban communities. I really think that there is a very good chance that well short of 30 years from now that you will not be able to drive into downtown Denver, New York, Los Angeles, San Francisco in an internal combustion automobile. I don't see this country making the kinds of investments necessary to build a public transportation infrastructure in 25 to 30 years, and by that time it's going to be too late. The only alternative is go to a two-tiered private transportation system. So if you want to drive from Denver to Albuquerque, you drive your car, but if you want to come into town, you drive a golf cart, you drive an electric car, a natural gas car, propane, solar, some other form of alternative fuel.

Recycling and closed-end manufacturing processes will dominate our economy. Environmental values will be shared by all segments of society. There will be a major shift in budgets from military, which will be 3 or 4 percent of national budgets instead of 30 to 40 percent or higher, to environmental expenditures. There will be brand new international institutions formed to deal with environmental regulation, trade, and development that we can't even dream of today, and all politics will be green politics.

Now, that's a pretty tall order. But if we are going to even maintain the level of

environmental quality that we have today we're going to have to be well along the road to achieving each of those goals 30 years from now on the 50th anniversary of Earth Day. And compared to what we set out to do in 1970, in light of what we've achieved in the last 20 years, that's really pretty staggering. It means fundamental changes in society, in institutions, in national priorities and in personal lifestyles. And I think that points up the fact that the greatest threat to our environment is not pollution or toxics or global climate instability. The greatest threat to the environment is lack of political will to make these kinds of changes.

Can the environmental movement play a leadership role in trying to develop that kind of political will, both in the United States and abroad? Well, you know, just as the environmental movement is only 20 years old as a citizens' movement, national groups like the Wilderness Society and the Sierra Club and the National Wildlife Federation, and Audubon, are also really less than 20 years old as significant national organizations. The biggest organizations in the national environmental movement are only just now beginning to emerge from a grass-roots stage of development. The Wilderness Society, in 1980, had 75,000 members. It had one field staff person east of Bozeman or Denver. I mean, we had a bunch of people running around who were paid part-time plus expenses to do grass-roots organizing. Today we have economists, foresters, planners, lawyers, biologists, ecologists, oil spill experts, media experts, and if you look at NRDC, EDF, National Wildlife Federation and Audubon, as well as some of the groups that do more research or studies like World Resources Institute, you see the same thing. So here the environmental community is trying desperately to acquire some of the professional skills and the technical expertise that we need to deal with these problems, because environmental issues are now an

integral part of economic policy, trade policy, foreign policy, debt policy, transportation policy, energy policy. The environmental advocacy community is a group of people who have not traditionally been concerned with these issues. So this is a very young movement.

There is certainly a growing diversity in the environmental community, and that's a good thing. While we struggle to get some technical expertise to cope with these overwhelming problems, we who work in some of the largest national organizations are accused of becoming three-piece suits who've become co-opted in the political process, and part of the problem rather than part of the solution. And there is some truth to that. But these are the kinds of skills we have to try to acquire. In the meantime, at the local and regional level, there's been an explosion in the number of environmental organizations, grass-roots organizations, to deal with specific issues, to deal with local issues. And increasingly, many issues that relate to waste and pollution and toxics are going to have to be dealt with at the state and local level, and I think the proliferation of local and regional groups is essential. It's a very good thing. That diversity is one of the great strengths of the environmental movement. And that means, unfortunately, that we sometimes fight a lot among ourselves, but that diversity is really a critical element of the movement.

However, local and grass-roots groups are not the people who can participate very directly in trying to advocate and forge solutions to some of these global problems. Looking at this situation from the point of view of somebody who works in a national organization, I see a number of very daunting challenges for us to stay relevant and to be able to participate effectively in the solutions of some of these problems. One problem is that we have to figure out how to acquire the professional skills and technical expertise

necessary to be able to play in the big global issues, without somehow losing our connection to the grass-roots strength and sentiment that really fuels this whole movement. Because if we get divorced from that, then we've really lost it. How do you become more professionalized and more sophisticated and still keep your links with the grass-roots?

In the work that we do in the Wilderness Society I try to talk about combining passion with professionalism. But that's not too easy because sometimes they are very different styles. In our particular work on public lands and ecosystems and natural resources, what we try to do is serve as a resource -- a technical resource for local and grass-roots groups and other national groups. We try to build coalitions and say, "we'll give you good information; we'll help you lobby; we'll help you use the media." So we try to leverage our work, but there are many types of issues on which it's difficult to do that. So -- combining passion and professionalism -- that's one of the tremendous challenges for the national level of the environmental movement.

Another is trying to figure how to use the market, how to structure market incentives, use market mechanisms, and use the business community to arrive at environmental solutions and environmental clean-up strategies. How do you do that -- and it is going to be necessary -- without basically being coopted by the polluters?

One example:

I find the spectrum of attitudes that is displayed within the environmental movement and elsewhere toward Waste Management, Inc., to be fascinating. To many people, Waste Management is the devil, the most evil element of the business community. On the other hand, it's one of the two major

industrial mechanisms in the country that are going to make it possible for us to recycle. Now how do you approach companies like this, and either with them or against them, try to develop incentives for them to move in the direction you want them to go forward in? Very difficult, but we are going to have to use market mechanisms and least-cost solutions, and we are going to have to work with business or at least try to link arms with them, and veer left and right so that they veer with us. But trying to strike the appropriate balance is going to be very tough.

Third, how do you continue to be visionary and aggressive, and always ask for more -- and still be pragmatic? We've got to dream but we've also got to have a delivery system. Because if we don't have a delivery system, we're not getting anywhere. Not everybody in the environmental community has to have a delivery system. I think the Wilderness Society's work to protect ancient forests in the Pacific Northwest is helped tremendously by Earth First, for example. I don't condone tree-spiking. I'm a former prosecutor -- I think of it the same way I think of any other kind of terrorism-- do something that is designed to try to injure or kill people, that's terrorism. But I think the passion and the frustration and the vivid way that Earth First works is a tremendous help to us, but they don't have a delivery system. We have a delivery system. Somehow you've got to be able to be aggressive and still know when to decide to take what you've got. And that's another balance that is very hard to strike.

And finally, I think increasingly the environmental movement as a whole, and certainly the major national groups, and I think this is probably true both in the United States and around the world, are going to have to deal with the problem of elitism, elitism at a number of levels. The most obvious level is that the environmental

movement has simply not really reached out to or been able effectively to represent people of color in the United States or poor people, particularly people who live in the inner cities. So that's one slice of it right there. I think a broader aspect of this is that the environmental community has always been regarded as somewhat elitist because we're more interested in natural resources than in human resources. And when it comes to protecting the environment versus protecting jobs, we don't care about jobs, we don't care about people. So we have to make the case that environmental protection, in the long run, a sustainable society, is the best economic approach. Traditionally, the environmental community has not made that argument very well.

Another dimension to this problem is that we have to somehow help the developing countries avoid the mistakes that we've made and yet respect their integrity and their sovereignty -- and that's not going to be easy either. On a global level too we are faced with the image of environmentalism as a very elitist movement. I think there are some hopeful signs.

An example of the type of strategy that can make these balances, is a project that we started in November and early December (1989). The major national organizations that are a part of a loose-knit group called the Group of Ten, which includes the Audubon, Wilderness Society, Sierra Club, National Wildlife Federation -- the big advocacy membership organizations - - decided that we needed to develop our own agenda to present to the Bush Administration for the G-7 meeting that's being held in Houston in July. That's the economic summit of the G-7 countries or the developed countries, rich countries.

Some of you may remember last summer it was the G-7 summit where the

countries adopted a communique that was very rich in environmental promises. A lot of vague language, but people were very pleased that the finance ministers of these countries would get together and realize that economics and environment have some connection. We felt that, with this meeting coming up in July, it was important not only to hold their feet to the fire but to develop our own agenda. And I insisted that one of the criteria for this agenda should be that you could boil it down into one long sentence and put it in a small box on the front of USA Today. I don't care how many briefing papers are behind it, but this has got to be something that can be communicated to people who don't know anything about this, communicated in an effective manner, over and over and over.

And we also agreed that we would try to hire a media consultant; we would do advertising to promote the agenda; we would set up a media center in Houston and try to give our own version of what was happening at this meeting, and then we would continue that after the meeting. We would take an agenda that we would advance for the next several years, an international public relations campaign, and we've taken this project pretty well along. And we've involved people from groups like Greenpeace, and Zero Population Growth, and Union of Concerned Scientists, groups like Audubon, Wilderness, Sierra Club, and groups like World Wildlife Fund, and World Wildlife Fund Canada, World Resources Institute, and some other think-tank type places. It's the first time that the entire environmental community in the United States has worked together on one very short agenda, and we're going to try to put together about a quarter of a million dollars and go out there and start to push this.

And we sent our draft out this week to the non-governmental organizations in Japan and France and Germany and Britain -

-- the other NGOs and the other G-7 countries -- to try to get them to try to figure out how to mount a campaign in the next few months to press their own governments to adopt the same agenda. And the agenda is really pretty simple: stabilize world population at 8 billion; cut Co2 emissions by 20 percent by the year 2000; no net loss of forests and wetlands; green economic development for eastern Europe (all aid to eastern Europe should go through a process of evaluation to make sure it produces environmental benefits); and stop ocean pollution due to ocean dumping by 2000. And then we've got a plank that talks about Third World debt. Now that's not honed down because I didn't do that in one sentence, but you can begin to imagine an agenda which you could communicate on television, or in a tabloid newspaper, over and over again, week in, week out, month in, month out, and maybe make a difference in forcing national administrations to respond to it.

Now that's an example of using, on the one hand, the very best technical expertise available to the environmental community, working together jointly and also using our grass-roots network, the Greenpeace and Friends of the Earth and Antarctic Coalition, and the people who have networks throughout the developed countries--reaching out to those organizations in other countries and trying to mount an international public education and lobbying effort, if you will. This kind of thing gives me some hope.

And then I look at what's happening to the Clean Air Act and the Administration's wetlands policy, and the Arctic National Wildlife Refuge, and ancient forests, and global warming conventions, and I sort of swing the other way and wonder whether we're in a kind of political deadlock here that just makes the politically possible nowhere near enough to make the kinds of fundamental changes in society we need to

make in the next 30 or 40 years. And when I'm in my down-swing is when I think the only way really to break through is to begin to have real green politics in this country.

Now there are those who say that a green party is never going to work and point out that in a way the non-profit sector of our society functions in the way that the greens have in Europe and in the Soviet Union. They don't have the kind of Third Sector that we have. And so they've had to do it through political parties, peace and environment. And here we have the Wilderness Society and the Sierra Club, which are our green politics, but of course we don't really participate in the political process, at least we don't effectively, and we're not sure we want to become a partisan for one major national party or another. I am not convinced that a green party or a green movement is at all out of the question for this country.

In 1980, I was involved in challenging state laws that restricted John Anderson from getting on the general ballot as an Independent candidate. For those of you who don't remember, John Anderson was a Republican congressman from my home state of Illinois who decided that he needed a graceful way to retire from Congress after many, many years in office. So he decided to run for President as a Republican and the polls showed that 20 percent of the people favored him. He realized he would probably do better as an Independent than as a Republican but, at the time, 7 or 8 states had laws preventing third party candidates. We were successful in court in overturning those laws on constitutional grounds.

In the course of arguing these cases, I learned a lot about third force presidential candidacies and third force political movements in this country. We have had a very rich history in this area: a history of

failure to get people elected President but a history of success of getting their ideas and programs, whether Bull-Moose or Progressive or whatever, into the political mainstream. And I think we may be about ready for a green political movement. I think that it's do-able and that it may be the only way of making the kinds of changes, building a constituency for the kinds of changes in environmental strategy that we need to make between now and Earth Day 50.

Thank you.