ENVISIONING A SUSTAINABLE WORLD

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Abstract
Vision is the most vital step in the policy process. If we don't know where we want to go, it makes little difference that we make great progress. Yet vision is not only missing almost entirely from policy discussions; it is missing from our whole culture. We talk about our fears, frustrations, and doubts endlessly, but we talk only rarely and with embarrassment about our dreams. Environmentalists have been especially ineffective in creating any shared vision of the world they are working toward -- a sustainable world in which people live within nature in a way that meets human needs while not degrading natural systems. Hardly anyone can imagine that world, especially not as a world they'd actively like to live in. The process of building a responsible vision of a sustainable world is not a rational one. It comes from values, not logic. Envisioning is a skill that can be developed, like any other human skill. This paper indicates how.

Introduction

To bring our world toward sustainability -- or any other goal -- we need to take different kinds of steps, which require different kinds of knowledge, talent, skill, and work.

We need, for example, to make things happen -- pass laws, make budgets, find resources, hire people, establish and manage organizations, invent technologies, build, restore, protect, tax, subsidize, regulate, punish, reward, **DO THINGS**. **Implementation** is the active, visible phase of achieving a goal, and therefore it is the most discussed phase. Probably 90% of all public discourse involves arguing about implementation. Most policy debates start and end with this phase, unfortunately.

I say "unfortunately," because any talk of implementation is necessarily based on **models,** which explain how we got to whatever state we are in, and what we should do to get to a better state. Models may be in computers, on paper, or in our heads. They may be sophisticated, but usually they are very simple -- for example: "freeing the market from regulation will make things better," or "new technology is all we need to solve our problem." We debate and challenge our models far too little, especially the models in our heads. Most

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of them are too narrow, too linear, too lacking in understanding of feedback, time-lags, exponentiality, variability, diversity, and other aspects of real-system complexity. Obviously, if our models are faulty, all the skillful and well-funded implementation in the world will not get us to sustainability or any other goal.

There are at least two more ingredients of the policy process that precede and are even more important than modeling. One of them is **information.** We need to know where we are and where we have been. Information not only validates or disproves our models, it helps us form and develop them and turn them into action. If information about our history and present situation is biased, delayed, incomplete, noisy, disorganized, or missing, our models will be wrong, and our implementation will be untimely and misdirected. Improving information means, among other activities, monitoring, organizing data, choosing wise indicators, education, communication (especially through the public media), and -- an issue vital to ecological economics -- the removal of bias from price signals.

If 90% of policy discussion focuses on implementation, virtually all the remaining 10% focuses on modeling and information. That leaves 0% for the last step of policy formation, which should be first -- the establishment of clear, feasible, socially shared **goals**. What do we want? Where would we like all these models, this information, this implementation to take us? What is our **vision** of the world we are trying to create for ourselves, our children, and our grandchildren?

Environmentalists have failed perhaps more than any other set of advocates to project vision. Most people associate environmentalism with restriction, prohibition, regulation, and sacrifice. Though it is rarely articulated directly, the most widely shared picture of a sustainable world is one of tight and probably centralized control, low material standard of living, and no fun. I don't know whether that impression is so common because puritanism is the actual, unexpressed, maybe subconscious model in the minds of environmental advocates, or whether the public, deeply impacted by advertising, can't imagine a good life that is not based on wild and wasteful consumption. Whatever the reason, hardly anyone envisions a sustainable world as one that would be wonderful to live in.

The best goal most of us who work toward sustainability offer is the avoidance of catastrophe. We promise survival and not much more. That is a failure of vision.

Even if information, models, and implementation could be perfect in every way, how far can they guide us, if we know what direction we want to move away from but not what direction we want to go toward? There may be motivation in escaping doom, but there is even more in creating a better world. And it is pitifully inadequate to describe the exciting possibilities of sustainability in terms of mere survival -- at least that's what my vision of sustainability tells me.

But I didn't always have such a vision. I had to learn, or perhaps I should say relearn, to create and express vision. In our industrial culture, particularly in the cultures of science and economics, envisioning is actively discouraged. We have to rediscover and practice it again. Perhaps if I tell you the story of my own experience with vision, you will understand what I mean.

A World Without Hunger

About ten years ago I ran a series of workshops intended to figure out how to end hunger. The participants were some of the world's best nutritionists, agronomists,

economists, demographers, ecologists, and field workers in development -- people who were devoting their lives in one way or another to ending hunger.

Peter Senge of MIT, a colleague who helped design and carry out the workshops, suggested that we open each one by asking the assembled experts, "What would the world be like if there were no hunger?" Surely each of these people had a motivating vision of the goal he or she was working for. It would be interesting to hear and collect these visions and to see if they varied by discipline, by nationality, or by personal experience.

I thought this exercise would take about an hour and would help the participants get to know each other better. So I opened the first workshop by asking, "What is your vision of a world without hunger?" Coached by Peter, I made the request strongly visionary. I asked people to describe **not the world they thought they could achieve, or the world they were willing to settle for, but the world they truly wanted.**

What I got was an angry reaction. The participants refused. They said that was a stupid and dangerous question. Here are some of their comments:
- Visions are fantasies, they don't change anything. Talking about them is a waste of time. We don't need to talk about what the end of hunger will be like, we need to talk about how to get there.
- We all **know** what it's like **not** to be hungry. What's important to talk about is how terrible it is to be hungry,
- I never really thought about it. I'm not sure what the world would be like without hunger, and I don't see why I need to know.
- Stop being unrealistic. There will always be hunger. We can decrease it, but we can never eliminate it.
- You have to be careful with visions. They can be dangerous. Hitler had a vision. I don't trust visionaries and I don't want to be one.

After we got those objections out of our systems, some deeper ones came up. One person said, with emotion, that he couldn't stand the pain of thinking about the world he really wanted, when he was so aware of the world's present state. The gap between what he longed for and what he knew or expected was too great for him to bear. And finally another person said what may have come closer to the truth than any of our other rationalizations: "I have a vision, but it would make me feel childish and vulnerable to say it out loud. I don't know you all well enough to do this."

That remark struck me so hard that I have been thinking about it ever since. Why is it that we can share our cynicism, complaints, and frustrations without hesitation with perfect strangers, but we can't share our dreams? How did we arrive at a culture that constantly, almost automatically, ridicules visionaries? Whose idea of reality forces us to "be realistic?" When were we taught, and by whom, to suppress our visions?

Whatever the answers to those questions, the consequences of a culture of cynicism are tragic. If we can't speak of our real desires, we can only marshal information, models, and implementation toward what we think we can get, not toward what we really want. We only half-try. We don't reach farther than the lengths of our arms. If, in working for modest goals, we fall short of them, for whatever reason, we reign in our expectations still further and try for even less. In a culture of cynicism, if we exceed our goals, we take it as an unrepeatable accident, but if we fail, we take it as an omen. That sets up a positive feedback loop spiraling downward. The less we try, the less we achieve. The less we achieve, the less we try. Without vision, says the Bible, the people perish.

Children, before they are squashed by cynicism, are natural visionaries. They can tell you clearly and firmly what the world should be like. There should be no war, no pollution, no cruelty, no starving children. There should be music, fun, beauty, and lots and lots of nature. People should be trustworthy and grownups should not work so hard. It's fine to have nice things, but it's even more important to have love. As they grow up, children learn that these visions are "childish" and stop saying them out loud. But inside all of us, if we haven't been too badly bruised by the world, there are glorious visions.

We discovered that in the hunger workshop. Having vented all the reasons why we shouldn't share our visions, we shared our visions. Not just what we expected, but what we really wanted. It was the first time I had been in a prolonged, shared, visionary space. As we constructed together a picture of the world we wanted to create, our mood lifted, our faces softened, our bodies woke up, we gained energy and clarity and solidarity.

The vision we pulled out of each other that day has gone on powering me for years. The end of hunger need not just mean that the hungry fifth of the world's people become like the rest of us, with all our stresses and strains. It need not mean massive, constant, expensive transfers of food from the rich to the poor. It would not, in my vision, mean chemical-intensive agriculture taking over the world, or populations exploding, or centralized control of anything. The world seems to expect the end of hunger to be like that -- if it thinks of ending hunger at all -- and so it's no wonder that we don't work very hard to achieve it.

In my vision of the end of hunger, every child is born into the world wanted, treasured, and lovingly cared for. Because of that, many fewer children are born and not one of them is wasted. Every person can become all that she or he is capable of becoming, in a world that is beautiful, where cultures are diverse and tolerant, where information flows freely, untainted by cynicism. In my vision food is raised and prepared as consciously and lovingly as are children, with profound respect for nature's contribution as well as that of people. In a world without hunger I can take care of my own nearby community and be taken care of by it, knowing that other people in other communities are also doing their caring close at hand. There would be plenty of problems to solve -- I want problems to solve -- but I could travel anywhere in the world without encountering deprivation, terror, or ugliness. What I would find, everywhere, would be natural integrity, human productivity, working communities, and the full range of human emotions, but dominated not by fear and therefore greed, but by security, serenity, and joy.

I could go on. I can see this vision clearly and in detail. I can see the farms; I can see the kitchens. But you get the point. Maybe you are already filling in your own details, or maybe you are uncomfortable in the presence of such visionary language. Whatever your reaction, notice where it comes from, notice what has been laid upon you by your culture, and notice that there is a place inside you, close to the surface or deeply buried, that desperately wants a world something like the one I've just sketched out. I have noticed, going around the world, that in different disciplines, languages, nations, and cultures, our information may differ, our models disagree, our preferred modes of implementation are widely diverse, but our visions, when we are willing to admit them, are astonishingly alike.

Some Generalizations about Vision

So I have been honing my capacity to envision. I rarely start a garden, a book, a conference, or an organization, without formally envisioning how I want it to come out -- what I really want, not what I am willing to settle for. I go to a quiet place, shut down my

rational mind, and develop a vision. I present the vision to others, who correct and refine it and help it to evolve. I write out vision statements. When I lose my way, I go back to those statements.

Sometimes I still feel silly doing all this. I was raised in a skeptical culture, after all, and worse, I was trained as a scientist, with all "silly irrationality" drummed out of me. But I keep practicing vision, because my life works better when I do. Here are some things I have learned about the way vision works:

- Envisioning is not a left-brain activity, it doesn't come from the part of me that does rational analysis. It comes from whatever part of me informs my values, my conscience, my sense of morality. Call it heart, call it soul, whatever is the source of vision, it is not rational mind.

- I have to keep filtering out any remnants of past disappointments, any tinge of negativism, any analysis of "reality." I have to work actively to focus on what I want, not what I expect.

- I have stopped challenging myself, or anyone else who puts forth a vision, with the responsibility of laying out a plan for how to get there. A vision should be judged by its clarity of values, not by the clarity of its implementation path.

- In my experience that path is NEVER clear at first. It only reveals itself, step by step, as I walk along it. It often surprises me, because my computer and mental models are inadequate to the complexities and possibilities of the world. Holding to the vision and being flexible about the path is the only way to find the path.

- Vision is not rational, BUT rational mind can and must inform vision. I can envision climbing a tall tree and flying off from its top, and I might very much want to do that, but that vision is not consistent with the laws of the universe; it is not responsible. I can envision the end of hunger, but careful modeling tells me that it can't be accomplished tomorrow; it will take time. I use every rational tool at my disposal not to weaken the basic values behind my vision, but to shape it into a responsible vision that acknowledges, but doesn't get crushed by, the physical constraints of the world.

- One essential tool for making vision responsible is sharing it with others and incorporating their visions. **Only shared vision can be responsible**. Hitler was indeed a visionary, but his vision was not shared by the Jews or the Gypsies or most of the peoples of Europe. It was an immoral, insane vision.

- Staying in touch with vision prevents me from being seduced by cheap substitutes. If what I really want is self-esteem, I will not pretend to achieve it by buying a fancy car. If I want human happiness, I will not settle for GNP. I want serenity, but I will not take drugs. I want permanent prosperity, not unsustainable growth.

- Vision has an astonishing power to open the mind to possibilities I would never see in a mood of cynicism. Vision widens my choices, shows me creative new directions. It helps me see good-news stories, pockets of reality that could be seeds of a wider vision. I see what I should support; I get ideas for action.

- People who carry responsible vision become, in some sense I can't explain, charismatic. They communicate differently from cynical people. Even if the vision isn't overtly expressed, it's there and it's noticeable. Inversely, many

progressive, dedicated, "realistic" people unconsciously communicate their underlying hopelessness. Being around them is a "downer;" being around visionaries is a constant inspiration.

- I have rarely achieved the full expression of any of my visions, but I have learned not to be discouraged by that. I get much further with a vision than without it, and I know I'm going the right direction. I can take comfort in my progress, even while I continue to bear the tension of knowing I'm not there yet.

I am a practical person. I think of myself as relentlessly realistic. I want to create change in the world, not visions in my head. I am constantly amazed, but increasingly convinced, that envisioning is a tool for producing results. Olympic athletes use it to make the difference between the superior performance their trained bodies can achieve and the outstanding performance their inspired vision can achieve. Corporate executives take formal classes in vision. All great leaders have been visionaries. Even the scientific, systems-analyst side of me has to admit that we can hardly achieve a desirable, sustainable world, if we can't even picture what it will be like.

Envisioning a Sustainable World

So I invite you to join with me in building that vision. What kind of sustainable world do you WANT to live in? Do your best to imagine not just the absence of problems but the presence of blessings. Our rational minds tell us that a sustainable world has to be one in which renewable resources are used no faster than they regenerate; in which pollution is emitted no faster than it can be recycled or rendered harmless; in which population is at least stable, maybe decreasing; in which prices internalize all real costs; in which there is no hunger or poverty; in which there is true, enduring democracy. But what else? What else do YOU want, for yourself, your children, your grandchildren?

The best way to find your answer to that question is to go to a quiet place, close your eyes, take a few deep breaths, and put yourself in the middle of that sustainable world. Don't push, don't worry, and don't try to figure it out. Just close your eyes and see what you see. Or, as often happens for me, hear what you hear, smell what you smell, feel what you feel. Many of my visions are bright, detailed, and visual, but some of the most profound ones have come not through "seeing," but through sensing in other ways.

In short, relax, trust yourself and see what happens. If nothing happens, don't worry, try again sometime, or let your visionary talent surface in your sleeping dreams.

But keep asking yourself: What would my home be like in a sustainable world? What would it feel like to wake up there in the morning? Who else would live there; how would it feel to be with them? (Remember this is what you WANT, not what you're willing to settle for.) Where would energy come from, and water, and food? What kinds of wastes would be generated and where would they go? When you look out the window or step out the door, what would it look like, if it looked the way you really want? Who else lives near you (human and non-human)? How do you all interrelate? Go around your neighborhood and community and see it as clearly as you can. How is it arranged, so that the children and the old people and everyone in between will be surrounded by security and happiness and beauty?

What kind of work do you do in this sustainable world? What is your particular and special role? With whom do you do it? How do you work together and how are you

compensated? How do you get to work? (Do you have to "get" to work? Is "work" a distinguishable activity in your ideal world? Is it separate from the rest of life?)

Travel farther in your vision, to surrounding communities. Look not only at the physical systems that sustain them -- water, energy, food, materials -- but look at how they relate, what they exchange with each other, how they know of each other. How do they make joint decisions? How do they resolve conflicts? (How do you WANT them to resolve conflicts?) How do they treat different kinds of people, young and old, male and female, intelligent and talented to different degrees and in different ways? ?) How do they fit within nature? How do they treat, how do they think about plants and animals, soils and waters, stones and stars?

Look at your nation (if your visionary world has nations -- if it doesn't, what does it have?). How does it meet its physical needs sustainably? How does it make decisions, resolve conflicts within and without its borders? What do your people know of other people, and how do they think about them? How much and what kinds of people and goods and information travel between your place and other places? Is your nation and your world diverse or homogeneous (the way you WANT it, not the way you expect)?

How does it feel to live in this world? What kind of consciousness or worldview, or tolerance of diverse worldviews do people use to keep things sustainable? What changes in this world, and what stays the same? What is the pace of everyday life? How fast, if at all, do people travel and by what means? What fascinates them? What kinds of problems do they work on? What do they regard as progress? What makes them laugh?

Whatever you can see, or can't see, keep looking. NOT being able to see something in a vision may be as meaningful as seeing it. Once when I did a visioning session with some German engineering students, they had no trouble seeing sustainable farms, sustainable forestry, even "sustainable chemistry." (That, seen by a chemist, was interesting. It involved minimizing rather than maximizing the amount of chemical needed to do any job, deriving chemicals from nature, making them the way nature does -- at low temperatures in small batches with no harmful emissions -- and recycling them as nature does.) But none of these engineers could envision a sustainable transportation system, though some of them actually worked in designing solar vehicles. Finally they concluded that transportation is a cost, not a benefit, that it's noisy, disrupting, energy- and time-consuming, and inherently unsatisfying, and that it would be best if everyone were already where they wanted to be, with whom they wanted to be. In a sustainable society, they concluded, travel would be almost unnecessary. (But they wanted to have, for fun, sailboats and horses and hang gliders!)

Conclusions, Caveat, and Manifesto

Of course having a vision isn't enough. Of course it's only the first step toward any goal. The grandest vision will get nowhere without proper information and models and implementation (and resources, labor, capital, time, and money). There are great difficulties in all these steps of social change and much work to do. I'm by no means indicating that we all become nothing but visionaries. I think what I'm advocating is simply that we make the world safe for vision.

That means, at the least, that we take a mutual vow not to go around squashing vision -- our own, or anyone else's, and especially not that of young people. That we don't try to keep our loved ones or ourselves from disappointment or from looking silly by urging them to "be realistic."

Beyond that we could occasionally take the social risk of displaying not our skepticism but our deepest desires. We could declare ourselves in favor of a sustainable, just, secure, efficient, sufficient world (and you can add any other "value word" you like to that list), even at the expense of being called idealistic. We could describe that world, as far as we can see it, and ask others to develop the description further. We could give as much credit to the times when we exceed our expectations as to the times when we fall short. We could let disappointments be learning experiences, rather than fuel for pessimism.

Above all, we could strengthen ourselves to endure the pain of the enormous gap between the world we know and the world we profoundly long for. I believe that it's only by admitting, permitting, and carrying that pain that we can gradually move our world away from its present suffering and unsustainability and toward our deepest values and dearest visions.