

I. Introduction

A. Purpose

My objective in this paper is to explain to myself the structure of influence that is at the heart of environmental problems (including the welfare of individual human beings). From the ideas developed in the publications listed in the reference section, as well as my own personal experience, I conclude that the *root cause* of all social and environmental problems is the structure and influence of global financial markets. There are many proximate causes of environmental degradation, but I submit that they are fundamentally financially-driven, based on incorrect economics combined with income inequalities, exacerbated by population growth, fueled by overconsumption, and supported by the mythology-based propaganda of the “free market/globalization at any cost” advocates.

This paper is not meant to be an academic or scientific exercise for economists or policy makers. I will shamelessly borrow from the referenced books and articles. It is meant to create a “conversion experience” for the reader. It describes simple, elegant, and obvious (once you think about them) reasons for our present condition. I call it my “flat forehead” paper. Take your hand and slap it against your forehead repeatedly as you chant, “Why didn’t I think of that?,” “It’s so obvious!,” “How could they get away with that?” And then, if you feel sufficiently inspired to learn more, please read the first five to ten books in the references. Believe me, they are exciting and will fundamentally change the way you perceive the world around you.

And people are intimately involved in it all. I’ve been fortunate in my career to be able to travel internationally. I often think that sending enough Americans on selected international trips to Central and South America, Africa, and Asia would dramatically increase support for the environmental and social justice movements. When I travel I like to experience the way people live. I always ask myself how I would feel if I were in their situation. One experience stands out for me as emblematic of our present state.

On a business trip to sell telephone systems to the Indonesian government, I took a side trip to a market in a poor part of Jakarta. The smell was horrid. The narrow alleyways were dirt turned to mud by a recent rain. Garbage was rotting before my eyes. The people were curious but friendly – this was just how they lived. In a meat and fish section a man was butchering a pig next to trays filled with dry and “fresh” fish. It was hard to see the meat and fish because of the swarms of flies that covered them. The man’s young son had the task of sweeping a palm frond over the meat and fish to make the flies leave long enough for the shoppers to see the product. The boy appeared to be proud of his responsibility and his father talked to him kindly while he continued butchering. Several days later, while watching my then six-year old son learning to use our new computer, I was emotionally overwhelmed by the dichotomy between the lives of these two young boys!

B. Philosophy

Since language often drives perception, we must make it clear that environmental groups are not *special interest* groups. They don’t build boats or run sawmills. Environmental organizations are ***universal interest*** groups with a special mission and responsibility in the growing “social sector” of society. There is more universal truth in a forest or an ocean than in any chainsaw or drift net, and these universal truths are what sustain human life – literally! Environmental groups are advocates for the very life support system of the earth, which must be healthy for the rest of civil society to flourish.

I believe that assemblies of people variously described as volunteer agencies, non-profits, non-governmental organizations (NGOs) should be viewed as an important new sector of society – the social sector. The concept of the Social Sector (civil society) as a formally recognized sector of society - equal in status to the Public Sector (government) and the Private Sector (business) - gives legitimacy to social

institutions that have too often been condescendingly thought of as simply volunteer groups. But the social sector must take precedence over the public sector, which in turn must take precedence over the private sector.

Much of the most important work in America is not done for pay. This includes not just the home, but also the broader realm of neighborhood and community. Work done here is the nation's informal safety net, the invisible social matrix on which a healthy market economy depends. Whether each additional lawyer, broker, or advertising executive represents a net gain for the nation is arguable. But there is little question that workers in the under-served community and volunteer sectors - the social sector of churches and synagogues, civic associations, environmental groups, and informal neighborly efforts - are doing work that is desperately needed. It logically follows that some mechanism must be developed to guarantee sufficient funding for this sector.

We hear about "sustainable this" and "sustainable that" almost everywhere. Paraphrasing former Labor Secretary Robert Reich, rarely has a term of public discourse gone so directly from obscurity to meaninglessness without any intervening period of coherence. But the word sustainability, defined clearly, is still the most comprehensive term we have for the process. There are several good definitions and the one you like may just be a matter of style. The "Three E's" - Environment, Economy, and Equity (Social Justice) - are being used by many sustainability advocates as a unifying concept. Elkington [12], discussing sustainable business practices, refers to the Three E's as the "triple bottom line" of sustainability.

A simple yet elegant definition is:

Sustainability means securing a high quality of life within the means of nature. Sustainability secures people's quality of life within the means of nature in a way that is fair and equitable to all humanity, to other species, and to future generations. Sustainability recognizes the interrelatedness of the economy, society, and environment. It requires that we not consume resources faster than they can be renewed nor produce wastes faster than they can be absorbed.

Another short definition is:

Sustainability is the balanced approach to integrating the environment, the economy, and social equity which allows present generations to meet their needs and to achieve a high quality of life within the biological carrying capacity of the earth without negatively affecting the ability of future generations to do the same.

But pushing the supposed "moral superiority" of sustainability will not make it happen. I heard a saying once that if you're not liberal when you're young, you don't have a heart; but if you're not conservative when you're older, you don't have a mind. I think we can develop a single organ that combines the best of heart and mind, call it the soul if you want, that puts us squarely on the right path. Sustainability will remain a hard sell until we can show that people have more to gain than to lose by changing their ways. Change flows from necessity, hope, realizable aspirations, and joy, not shame and blame.

It's useless to think we always have to harm what we touch. We're going to touch it as long as we exist. The romantic fantasy of humans as an irremediably nasty plague on the Earth needs to go the way of other adolescent self-indulgences. It may stem from genuine regret and dismay, but it's no more useful than sulking silently when asked not to monopolize a conversation. And for those dedicated to imposing their more ascetic solutions on the rest of us let me quote one of the most basic economic principles given by natural capitalism, "*We can surely eat lower on the food chain, but we cannot eat recipes.*"

Finance and economics are the keys. Without understanding this we can only become frustrated if our recycling group can't seem to get our local supermarket to put more effort into such an "obvious" need as recycling plastic bags. But is it all a conspiracy? Rather than just a simple conspiracy, I believe we are witnessing another evolutionary struggle of ideologies. An ideology is a belief-system - a set of beliefs, myths, and hypotheses with some internal coherence - that seeks to shape the fundamental thought processes of a society. Once an ideology is dominant and internalized by the majority, an automatic pilot

syndrome can control a society's path with almost no one paying attention to, much less questioning, the outcomes.

Ignorance is remediable, but it does take work. Ideology may be based on ignorance, but it takes much more than work to change. It usually takes a conversion experience. There are no easy solutions to any of the problems covered in this paper. Some might say there are no solutions at all – that it's already too late. The downside of analyzing the Siamese twins of environmental/social problems and their root causes is that it can bring on a state of emotional helplessness. The situation is so breathtakingly complex that sometimes it feels as if the only thing we can do is sit back and admire the problem.

Why do we really care about what happens to the earth, to our children, after we die? Motivational studies over decades have confirmed that everyone, given the choice, wants to do the best they can. Good educational and business environments are designed to allow for individual initiative in solving problems and achieving optimal solutions. Why, then, is there so much apparent conflict, especially in the environmental area? Paul Hawken's book, *The Ecology of Commerce* [16], addresses this issue, especially for small businesses:

“It's like being a single parent when the dog has run away, the children are fighting, the dinner is burning, the baby-sitter hasn't shown up, we are late for the PTA meeting, and have just spilled gravy on the carpet when someone doing a survey knocks at the door and wants to know how we feel about the proposed landfill at the edge of town.”

Once there were hippies, yuppies, and yuppies, and maybe we've all been some of one or the other or all. But now I think we're cultivating a group of MOPIs - Moderately Old and Philosophically Incapacitated. This applies directly to the financial and corporate people fostering the festering. But even in the environmental community, there are some who mope around finding things to complain about and standing in the way of imaginative, integrative solutions. Although the right to be heard does not include the right to be taken seriously, too much negativity can damage credibility. Because of the fragmentation of our political system, our operating reality is “majority rule by the minority who care”, and we who care must be effective.

Positive environmentalists recognize that solving any problem requires carefully defining the root cause of the real problem and understanding its impact on society and the economy. The goal is not ascetic self-discipline, but a sort of unadorned grace. Solutions don't need to be the result of some dialectical struggle between good and evil. Many years ago, philosopher/logician Francisco Varela [24] described the “Star” hypothesis in which he proposed that for every duality in apparent conflict there is a larger whole within which the duality is integrated and to which it contributes stability. He pointed out that in Hegelian dialectics dual interactions are of the zero sum form: what one side gets the other side loses. But the operational form of real interactions seems almost universally to be of non-zero sum form: every participant can win (by playing the game of the whole).

When we look at natural systems, nowhere do we find opposition apart from our own projection of values. The apparent conflict pair, predator/prey, for example, does not operate in opposition. Both generate a whole unity, their ecosystemic domain, where there is complementarity, mutual stabilization, and benefits in survival for both species (although not necessarily for individual members of the species). So although we can project values to the apparent duality of predator/prey, the inclusive whole is really ecosystem/species interaction. A humorous example can illustrate this point. Several endangered peregrine falcons were released in the San Francisco Bay Area. Within days a distraught person called the local Audubon Society to report that the falcons were killing and eating some beautiful little quail that lived nearby. This person demanded that someone come to kill the hawks and save the quail!

To simplify, if you really think there's a basic conflict that can't be resolved, you're not thinking at a high enough system level. I've always tried to approach conflict with this philosophy (it's really not that complex or radical). But it often takes a lot of work to educate the other side in an apparent conflict situation. I prefer to think of working strenuously toward a solution I believe is correct as a “strategy of aggressive balance”

rather than compromise. I have a cautious optimism about our future. The reason I'm cautious is because it will take a lot of work on the part of many people to make a difference, and I know how lazy I can get. That's why part of the final solution is to maximize citizen involvement at every level possible.

C. Structure

Although there are possible solutions to specific problems sprinkled throughout the paper and in the final section, I don't really discuss specifically environmental issues such as wetlands preservation, for example. I believe environmental organizations are one of the most important types of social sector institution. If we understand economics as a subsystem of the environment, environmental organizations take on special significance since they are the vanguard bringing the concepts of natural capital, ecosystem services, carrying capacity, and ultimate survival-mode issues into the conversation. Based on the Star hypothesis above, I look at a local "conflict" of wetlands preservation versus a sprawl housing development, for example, as an opportunity to raise the system level of the discussion. Convincing everyone of the importance of critical ecosystem services rendered by wetlands, combined with the fact that people need humane places to live, can lead to a change in the fundamentals of land use, community design, and architecture. This may not be easy, but through a strategy of aggressive balance environmental groups may be able to lead their communities (some of them kicking and screaming, to be sure) into a more sustainable future.

It may seem strange for a paper on environmental economics and sustainability to put that section near the end. But when we understand the full impact of the present financial and economic systems, the need for an alternative becomes very obvious and much easier to understand. Although many concepts in this paper are intimately interrelated, its structure attempts to show how some of those interrelationships evolve from specific approaches to reality.

So I begin with some of the very basic ideas of economics which have become mythologized as the fundamental rules of the game. Then I discuss money, how it's created, and how it's used in support of these rules. If you have money and rules, you next must evolve a financial system to track and facilitate economic activity. The financial system itself, and the people who run it, will create new rules, goals, and assumptions. The section on growth attempts to show how the financial system has created an assumption of the need for growth in contradiction to many indicators of its negative consequences. I include a section on corporations next because they are the basic agents through which economic activity and cultural change are driven. The section on globalization follows irresistibly from the forces unleashed by the logic of the world view described in the previous sections.

Finally, the last two sections describe the basics of environmental economics and sustainability followed by proposed solutions. Formulating solutions to complex problems is always difficult. That's why they always seem so radical, especially when economics is involved – there's a built-in massive inertia inherent in the status quo. But the solutions proposed have widespread and growing support. Environmental organizations must work to create "conversion experiences" in everyone they can reach. It's critical for as many people as possible to contribute in every large or small way they can in every area of the social sector. Hopefully the conversion experience for society doesn't have to wait for some avoidable disaster to trigger it.