

Making a Difference in the Future of Agriculture and Forestry: Returning to Common Sense¹

John Ikerd²

American farmers, foresters, and natural resource managers face greater challenges today that at any time in the history of the nation. Certainly, this is not the first time that American farmers and foresters have been confronted with low prices for the things they sell and high prices for the things they must buy. Neither is this the first time they have felt over-regulated by government and under-appreciated by society. This is not even the first time thousands of farmers and foresters have faced the possibility of being forced out of business. But, this is the first time that even the survivors have been confronted with the very real prospect of losing control over decisions regarding how their farms, forests, and natural resources are managed.

This is the first time also that Americans have been confronted with the reality of having their agricultural and natural resources controlled by multinational corporations rather than American farmers and foresters. And, this is the first time Americans have had to confront the reality of actually running out of the resources – water, soil, minerals, clean air, etc. – upon which the productivity of our resource economy ultimately depends. And for the first time, Americans are beginning to realize that the very things that have increased our economic standard of living have diminished our overall quality of life.

We are confronted today with challenges that will fundamentally change what it means to be a farmer, forester, or resource manager. Meeting these challenges will require more than a bit of tweaking, fine-tuning, or redirecting. We must fundamentally change our ways of thinking about the basic nature of resources, of the land, and about our relationships with the land, and with each other. As Americans, we must embrace new models of resource development, based on new paradigms or mental models, which in turn reflect a worldview fundamentally different from the dominant worldview of today.

We cannot rely on observation or experience to guide us as we make decisions in the future. Even our current concept of science will prove inadequate in answering the most critical questions confronting us today. If we are to succeed, we must learn to rely on our uniquely human ability to anticipate things we have never before experienced. We must nurture a concept of quality of life, which transcends our individual, short-run self-interests to include the relational and spiritual aspects of being human. We must be willing to start thinking all over again, from scratch. We must rebuild American society on a foundation of our uniquely human “common sense.”

The problems confronting American society today are symptoms of outdated, and thus dysfunctional, ways of thinking. The dominant ways of thinking today are based on philosophies developed more than four hundred years ago by philosophers such as

¹ Presented at Washington Agriculture and Forestry Leadership Program Seminar 16, “Launching Your Leadership Resources,” Agriculture and Forestry Education Foundation, Yakima, WA, May 10, 2002.

² John Ikerd is Professor Emeritus, University of Missouri, Columbia, MO – USA.

web site: <http://faculty.missouri.edu/ikerdj/>

Rene Descartes, Isaac Newton, and John Locke. They hypothesized that the world worked like a big, complex machine, with many intricate and interconnected parts. They reasoned that everything that happens, every *effect*, must have a discernable *cause*. Thus, if we formulate appropriate hypotheses concerning cause and effect relationships, and design appropriate experiments or observations, we can find the cause of every effect, can fit our individual findings together, and eventually, we can comprehend how the world works. The thinkers of this “age of enlightenment” laid the conceptual foundation for today's dominant notions of “science.” These early scientists rejected anything that could not be “proven” empirically, through observation or experiment, as irrational superstition – as have their followers. If you can't prove it, it simply is not true.

The industrial era, which began in the late 1700s, was built on a conceptual foundation laid during the “age of enlightenment.” Adam Smith's landmark book, The Wealth of Nations, most clearly documents industrial ways of thinking that have dominated the “modern” world since its publication in 1776. Smith laid out the blueprint for industrialization with his discussion of specialization, which he called division of labor. He also illustrates the necessity for standardizing these specialized processes so they all fit together, and he writes of the tremendous economies of scale achievable as a consequence. Smith laid the conceptual foundation for later assembly line work in large industrial factories. Conceptually, factories are nothing more than complex machines with both human and mechanical processes and parts. Industrialization is based on mechanistic concepts.

Smith also provided the foundation for modern economic thought, with its emphasis on the “invisible hand” of a free-market, capitalistic economy capable of transforming our pursuit of individual self-interests into the greatest societal good. The “free market economy” was a mechanism or machine that could be created to serve the good of society. Once set into motion, it would function pretty much on its own. Thus, we need only concern ourselves with doing our part, and best of all, our part was simply to look out for ourselves. Economics, though a social science, is based on mechanistic concepts.

Science, industrialization, and capitalistic free-market economics have produced great benefits for human society, undoubtedly exceeding even the wildest optimism of their creators. Over time, the human experience has been transformed from a constant fight for survival against hunger and disease, from drudgery of a day-to-day existence and expectations of early death, to the long life of relative ease and comfort we expect today. No one would choose to go back to the world of even a hundred years ago, and certainly not back to the beginnings of industrialization or science. The history of America has been one of human progress. But, we are now beginning to realize that this progress was brought with grave risks.

We have acknowledged and proclaimed the rewards of “modern society,” but we have ignored and denied many of its unintended consequences. We applied the principles of scientific, industrial capitalism first to those endeavors where the rewards were the greatest and the risks were least, but now, those same principles are being applied everywhere, to all aspects of our society. The accumulating negative consequences should tell us, there are situations, times, and places in which our conventional ways of

thinking just don't fit. In particular, as we have continued to pursue old ways of thinking in developing natural resources, the benefits have dwindled and the costs have escalated, leaving agriculture, forestry, and the whole natural resource sector of our economy in peril.

The challenges confronting farmers, foresters, and natural resource managers today reflect the unintended consequences of our outdated ways of thinking about the world and our place within it. If we are to meet these challenges we must understand and acknowledge the limitations and shortcomings of contemporary ways of thinking. We must challenge the scientific method as the only legitimate means of understanding nature. We must challenge the industrial model as the only legitimate means of developing resources. And we must challenge the free market economy as the only legitimate means of managing resource use. We must begin by learning to use our common sense.

Our common sense should tell us that the economic crises in American agriculture and natural resources today are natural consequences of an unbridled industrial, "free-market" economy. Over the past century, we have industrialized agriculture and forestry. We have adopted highly specialized systems of production in order to increase productive efficiency. We have standardized processes and products, in order to routinize, mechanize, and achieve both operational and economic efficiency. Specialization and standardization, in turn, have allowed us to consolidate ownership and control of agriculture and natural resource management into ever-larger enterprises. And, we have achieved economic efficiency with large-scale, industrial systems of production and distribution, just as Adam Smith suggested. We have made farms and forests work like factories without roofs and have made fields, feedlots, and tracts of trees function as biological assembly lines.

We have allowed the "free markets" to determine who gets to be farmers and foresters; and with industrial consolidation of control, there has been room for fewer and fewer of either. Each new, cost-saving technology made it possible for each farmer or forester to manage more land, more capital, and more labor – producing more crops, more livestock, more trees. The resulting increases in production inevitably led to falling market prices for the commodities produced, quickly erasing the profits that had motivated innovators and early adopters. Eventually, producers were forced to adopt the new technologies, not to make profits, but to survive. Those who couldn't survive the resulting depression of prices and profits, were "freed from their economic hardships" to find better employment elsewhere.

Industrial technologies allowed the productive capacity of individual producers to increase far faster than any increase in demand for food or other natural resource products. Thus, some farmers and foresters had to fail so that others might expand, and thus, might fully realize the benefits of new cost saving technologies and achieve still greater economics of scale. Failure was not necessarily a matter of poor management or inefficiency. Instead, many failed because of bad advice, bad weather, bad luck, or unfortunate timing. Some simply had to fail, for one reason or another, so others might succeed. Losses persisted until enough were forced out to allow prices to rise again. American farmers and foresters have experienced these periodic crises for

at least the past hundred years. Crisis is not new, but instead, is a chronic system of life in a free-market, industrial economy.

However, the current crisis in agriculture and forestry is different from those of the past in at least two important respects. First, individually owned-enterprises are no longer capable of competing in markets for basic commodities – wheat, apples, cattle, hogs, chickens, lumber, plywood, etc. Today, the economies of size in basic commodity production exceed the financial capacity of all but a select few individual investors. Increasingly, natural resource based industries are controlled by a handful of giant, publicly owned corporations. These corporations are fundamentally different from the individual proprietorships and family corporations of the past.

Family corporations reflect the social and ethical values of the family, but most large publicly owned corporations have no sense of humanity. Most are owned in large part by pension funds and mutual funds, where the actual stockholders are not even aware of which companies they own, and thus, accept no social or moral responsibility for the actions of such companies. Institutional investors own stock to make money, through dividends or appreciation in value, and for no other reason. The corporate managers may be just as human as any other individual, but they have no choice other than to maximize profits and growth for the benefit of their stockholders.

Today, the only way individuals farmers and foresters can gain access to the technology, capital, management know-how, and markets needed to compete in today's commodity markets is through comprehensive contracts with such giant corporations. Under comprehensive contracts, the corporation, not the producer or landowner, makes all of the major decisions concerning how the commodities will be produced and how the land will be used. The growing prevalence of contract production makes the current crisis different. The current crisis could well bring the end of independent decision making in the agricultural and natural resource economy.

Another distinctive characteristic of the current natural resource crisis is globalization. If the U.S. is successful in establishing a global free-market, in removing all national economic boundaries among nations, food and natural resource products will be produced wherever in the world they can be produced at the lowest dollar and cent costs. Increasingly, that will be somewhere other than in the U.S. As we have already begun to see, our land and labor costs are simply too high to compete with many other countries of the world in natural resource based industries. We have better employment opportunities for our labor and growing residential demands for land, which may keep the U.S. at a competitive disadvantage in most global commodity markets into the foreseeable future.

Increasingly the corporations that control agricultural and natural resource management decisions are multinational in scope. They operate around the world and have stockholders in many countries of the world. They are not human, so they have no families, no communities, and no sense of national loyalty. They will apply their technology, management, and capital wherever they expect to reap the highest economic return. In agriculture and forestry, the highest economic returns will not likely be in America. The sole loyalty of the corporation is to its stockholders, and its sole

responsibility to its stockholders is to make money and grow. In a global, free-market economy, multinational corporations will be free to use the resources of the world any way they choose to maximize profits and growth.

The current economic crisis in agriculture and natural resources truly threatens our national security. A country that cannot feed itself is no more secure than a country that cannot defend itself. Perhaps agriculture and forestry will not leave America, at least not completely, but we could easily become as dependent on others countries for our food and forest products as we are today for our oil. Perhaps we can keep food imports flowing, but at what cost in our military budget, and at what cost in human lives?

Perhaps it's time to stop and ask if the economic benefits of global free markets are worth the growing costs to our society – to people, to families, to communities, to America. “Free market” economics will continue driving us toward global corporatization. If we are to choose a different future, we must rely not on economic logic and reason, but instead, on our common sense.

Industrialization and corporatization not only threatens our economic future, but also threatens our natural environment. In the early 1960s, before Rachel Carson wrote her landmark book, “Silent Spring,” most people had no concept of the meaning of the word “environment.” Year after year, since then, we have learned more about the negative environmental consequences of using the corporate, industrial model of natural resource development. We have seen the consequences in agriculture and forestry in the form of increased soil erosion, declining soil health and productivity, chemical contamination of streams and groundwater, loss of biological diversity, scarcity of water, and an increasingly fragile natural ecosystem. We know now that industrial systems of farming and forestry fundamentally alter the natural environment. Many argue about whether or not such changes have significant implications for the ability of humanity to continue to feed itself or to survive on earth in the future. But, there is little doubt that we are doing things to the earth that are fundamentally different from anything humans have ever done before.

The growing number of environmental regulations now confronting farming and forestry are a reflection of public concern for the natural environment. They are concerned not only about the safety of water, air, and food today, but also, about our ecological legacy. They are concerned about the natural ecosystem, including resource conservation and biological diversity, and are concerned about our legacy for future generations. Lacking any other means of protecting nature from economic exploitation, they rely on government regulations. Thus, farmers and foresters can expect to confront increasing regulations, so long as regulation appears to be the only reasonable means for protecting the natural ecosystem from economic exploitation. Increasing regulations will provide additional incentives for corporations to abandon America.

Some believe that continuing advances in technology and human ingenuity will more than offset the decline in natural productivity and we can continue indefinitely to produce more with less help from nature. Others believe that we are no less dependent on nature today than when we were hunters and gatherers, and that the future survival and health of humanity depends on the continuing health of our natural ecosystems. In

truth, our current approach to science is incapable of answering, or even appropriately addressing, such questions. Nature, quite simply, is too complex, interdependent, and dynamic to accommodate our current mechanistic approach to science. We will realize the ecological consequences of our actions long before we have enough information to make science-based decisions. If we are to ensure ecological integrity, we must learn to rely on our common sense.

American *society* also is being impacted by our industrial approach to economic development. Robert Putnam, a Harvard University political scientist, in his recent book, Bowling Alone, documents changes in the social connectedness of Americans over the past century. He reviews data on a multitude of social indicators from voting on political issues, to membership in organizations, to writing letters to editors, to developing friendships, to joining bowling leagues, to spending time with family, to inviting neighbors for dinner. Virtually all of these indicators depict an American society that has become increasingly disconnected and less socially involved since the 1950s, interestingly, reversing a trend of increasing connectedness during the first half of the century.

Putnam also documents a strong correlation between our growing disconnectedness and our overall physical and mental well-being. For example, incidence of mental depression among those of the past two generations of Americans, the most socially disconnected, has increased roughly “tenfold.” It might be tempting to attribute this rise to a greater willingness to acknowledge depression; however, between 1950 and 1995, the rate of suicide among American adolescents more than “quadrupled” and suicides among young adults nearly “tripled.” In addition, the incidence of “malaise” – headaches, indigestion, and sleeplessness – show patterns similar to the more serious mental illnesses. Between the late 1950s and late 1990s, each new generation has indicated in surveys that they are “unhappier” than the previous generation. As each generation has become increasingly disconnected, the nation as a whole has become increasingly mentally ill and physically miserable.

So how does this relate to corporate industrialism? Specialization, standardization, and consolidation of control obviously alter the nature of human relationships. With specialization, people relate to each other impersonally – through markets or formal contracts, according to specific rules and regulations. With standardization of processes and procedures, human imagination and creativity are stifled, putting greater emphasis on a win-lose type of competition. Consolidation puts authority and control over “the many” in the hands of “the few,” thus contributing to a sense of dependency and distrust. Even Adam Smith talked of the potential for deskilling and dehumanizing workers through the process of division labor. So it seems logical that industrialization might also have led to increasing disconnectedness within society.

However, the American economy was experiencing rapid industrialization during the first half of the twentieth-century, when American society was becoming increasingly “connected.” In fact, there is evidence that industrialization may have actually helped bring Americans together. Workers organized themselves into labor unions, formed political organizations, participated in local and national politics, and by a whole host of means, sought collectively to offset the growing economic and political power and

abuse of large industrial organizations. However, the last half of the twentieth-century brought increasing corporatization of the American economy – the final stage of industrialization.

Until the mid-1900s, the vast majority of business enterprises were either individually owned proprietorships or family corporations. Mom and pop grocery stores were still the norm, as were individually owned and operated restaurants, hardware stores, dry goods stores, etc. Business owners, managers, and workers were all members of the same communities. Most factories were still locally owned and operated by families with deep roots in the communities in which they were located. It was not until after World War II, in the 1950s and 1960s, that giant, non-family corporations began to dominate all aspects of the American economy. The chain stores displaced the mom and pop grocery store, franchised fast food chains displaced independent restaurants, building supply chains replaced local lumberyards and hardware stores, and now, “super centers” are displacing just about everything else. Our growing disconnectedness has coincided with this period of growing corporatization.

Growing social disconnectedness in farming and forestry has been reflected in the demise of family farms and forestry enterprises, decline and decay of rural communities in natural resource dependent areas, and in exploitation of rural people by outside investors. The struggle for survival in an industrial economy has destroyed the integrity of relationships among rural people, leaving them vulnerable to exploitation by anyone who promises to create jobs or to restore the dwindling local tax base. Without positive relationships, communities have no means of rediscovering a vital economic purpose, and thus, have no means of achieving community self-development from within. They are left helpless to defend themselves from outside investors who are searching for cheap labor or for someplace to “dump something” that no one else wants in “their backyard.” Without a sense of connectedness, there is no sense of community in rural areas.

Putnam attributes our growing disconnectedness to such developments as increasing time spent at work, increasing money pressures, more two-wage-earner households, increasing commuting time and distance, and increased time spent watching television. But perhaps most significant, he observed that each new generation that has reached adulthood since the 1960s has been significantly less connected than was the previous generation. So disconnectedness is becoming a part of American culture – something passed from generation to generation. In reality, we will never know for sure what is causing our social disintegration. Society quite simply is too complex, interdependent, and dynamic to discover its truths through a mechanistic approach to science. If we are to restore human relationships and rebuild our social capital, we must learn to use our common sense.

Our common sense should tell us that something in the *process* of industrialization, not necessarily industrialization, per se, is the root cause of our growing social disconnectedness. While industrialization places no value on personal relationships, nothing inherent in the basic concepts of industrialization necessarily destroys our ability to relate to each other. People, by nature, tend to specialize, develop standard routines, and voluntarily accept the leadership of others, without necessarily threatening

their personal relationships. Likewise, the *process* of industrialization, not industrialization per se, threatens the natural environment. Living organisms have specialized functions, many natural processes are predictable or standard, and nature is filled with examples of social hierarchy or centralized control. In a sense, specialization, standardization, and centralization are basic aspects of nature, including human nature.

However, diversity, individuality, and independence also are fundamental aspects of nature, including human nature. Problems arise because the *process* of industrialization has no natural limits. Industrial specialization continues, even after it has exceeded its natural ecological and cultural boundaries. And, when specialization begins to destroy ecological and cultural diversity, it begins, inherently, to create problems. Industrial standardization continues even after it begins to distort and blur the boundaries that define individual people and places. And, when standardization begins to destroy the unique values of individual differences, its cost, inherently, begins to rise. Industrial consolidation continues even after it begins to destroy the boundaries of personal security, as the poor and weak become dependent upon the rich and powerful. And, when consolidation of control begins to destroy personal independence and freedom of choice, its threats to society inherently grow.

Our common sense should tell us that we have to learn to live within the boundaries of nature, including human nature. We can reap the benefits of specialization, but only so long as we specialize within the boundaries defining diversity within nature. We must fit the things we grow and the ways we manage our farms and forests to the ecological diversity of nature – to the soils, climates, topography, and geography of unique places. We can reap the benefits of standardization, but only so long as we standardize within the boundaries that define individual people, cultures, and places. We must fit the things we grow and the ways we manage to the individual abilities, ambitions, and aspirations of the farmers and foresters who ultimately must take care of the land and help sustain viable communities. We must fit what we do to the uniqueness of the cultures and places within which we live. We can realize the benefits of consolidation of control, but only so long as we allow people to maintain their independence – their freedom and ability to find another job, join another group, or choose another life. We can realize the benefits of specialization, standardization, and consolidation, but only if we are willing to make conscious, purposeful choices to respect the boundaries of nature, including human nature.

Thankfully, a new paradigm for resource development is emerging, which recognizes and respects the natural ecological and social boundaries necessary to give form, substance, quality, and sustainability to life. The new paradigm is emerging under the conceptual umbrella of “sustainable development.” Sustainable development came into broad, public consciousness through the first major international conference on environmental issues sponsored by the United Nations in Stockholm, Sweden in 1972. Sustainable development was defined there as, “development that is capable of meeting the needs of the present generation while leaving opportunities for future generations to meet their needs as well.” Sustainable agriculture and sustainable forestry are but two of the many social movements being driven by efforts to develop more sustainable systems of resource development.

Sustainable farms and forests must be capable of meeting the needs of the present, while leaving equal or better opportunities for those of the future. In order to achieve sustainability, our food and fiber systems must be ecologically sound, economically viable, and socially responsible. The ecological, economic, and social requirements of sustainability cannot, and need not, be proven empirically; they are matters of common sense. First, any system of resource development that destroys the integrity of its resource base – the health and productivity of the soil, water, air, etc. – eventually will lose its ability to produce, and thus, is not sustainable. It's just common sense. Second, economics is the means by which we decide who gets to develop the resources and how they are developed. If a development strategy is not economically viable, it is not economically sustainable, no matter how ecologically sound it may be. It's just common sense. Finally, the fundamental purpose of resource development is to meet the needs of society. Thus, any system of resource development that does not meet the expectations of society, as producers as well as consumers, will not be supported by society, and thus, is not sustainable. Again, it's just plain common sense. Any system of sustainable development must be ecologically sound, economically viable, and socially responsible. A system lacking in any one of the three, quite simply, is not sustainable. It's just common sense.

Our common sense tells us there are boundaries which define people, families, communities, and nature, and which must be respected and honored in a sustainable society. Our common sense tells us there are boundaries which give form and substance to all physical matter, to plants, animals, earth, water, and which must be respected and maintained to sustain life on earth. If we are to sustain a desirable quality of human life on earth, we must develop systems of sustainable agriculture and natural resource development – systems that respect the boundaries of nature. To do so, we must challenge the conventional wisdom that there are no limits to growth, that new technologies will fix every problem, and that humankind must dominate and subdue the earth and fill its every nook and cranny. We must challenge such conventional wisdom with our common sense; there are inviolate laws of nature, which we cannot change or repeal, and thus, to which we must conform in our relationships with nature and with each other.

Conventional wisdom reflects beliefs, based on experience and observation, which are passed from one generation to the next, or more common recently, passed down from “experts” to ordinary people. We are told that something is true, in general, by someone in a position of respect or authority. We observe that it seems to be true in some specific situation, and thus, we conclude that it must be true. Such things become conventional wisdom. In times past, parents, clergy, political leaders, or other authority figures, were the carriers of most conventional wisdom. More recently, however, if something has been “proven” by science, it is believed and accepted as truth, often without personal testing. Science has replaced personal experience as the source of most conventional wisdom.

Common sense is something that we “know” to be true, intuitively and inherently, without having to observe it, experience it, or prove it. As humans, we all have access to a common sense of the things we actually need to lead lives of quality and harmony.

We all share a common sense of what's good and bad, of what's right and wrong. We know many such things without being told, taught, or convinced.

The founding fathers of America relied on their common sense in drafting the Declaration of Independence. They wrote, “We hold these Truths to be self-evident, that all Men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty, and the Pursuit of Happiness.” They didn't feel a need to prove their assertions, these things were held to be “self-evident:” – they were common sense. The Golden Rule is common sense. We know that it is right and good that we should “do unto others as we would have them do unto us.” The Golden Rule has been a part of every enduring religion and most major philosophies throughout recorded history. No one has ever felt compelled to prove it; it's just common sense.

Often times we are misled in our beliefs, when we experience things that we don't understand, when we are told things that we “want” to believe, or when we accept someone else's opinions instead of thinking for ourselves. In such cases, we discard our common sense in favor of conventional wisdom. Even the Founding Fathers allowed conventional wisdom of the times, such the acceptability of slavery, to take priority over their common sense. When conventional wisdom makes sense, we should believe it. But, when it doesn't, we should reject it. We always have access to our common sense, if we choose to use it. The conventional wisdom of American society today is threatening the sustainability of our society. To meet the challenges that confront us, we must return to our common sense.

We must reject the conventional wisdom of industrialization. Farms and forests are not factories. Plants, animals, and people are not machines that can be assembled into some sort of biological assembly line. The niches within nature tend to be diverse, distinct, and small, and thus, the potential for specialization, standardization, and centralization is limited. Agriculture, forestry, and other “living systems” were industrialized last, because they are among the least well suited of all enterprises for the industrial model. Thus, the benefits have been fewer and the ecological and social costs have been greater, as the boundaries of nature were quickly breached. Industrialization neither respects nor even recognizes the natural boundaries, which define the ecological niches within nature. Industrialization neither respects nor even recognizes the social boundaries, which define individuals, families, communities, and nations. As people, we must learn to recognize and respect the boundaries of nature and of society and must purposefully restrain the processes of industrialization. We must challenge the conventional wisdom of industrialization, with common sense.

Corporations are not people; they recognize no ethical or moral constraints to growth and power. Most publicly held corporations today far exceed the size needed to achieve true economic efficiency. Corporate consolidation today takes place for one basic reason: to increase market power – the power to exploit their customers and suppliers. Our only means of controlling corporate growth is through the collective power of people, through government. The government has largely abandoned its role in maintaining economically competitive markets, as the corporations have used their economic power to gain control of the political process. Corporations are granted

charters by the public to function for public benefit, not for public exploitation. If we are to prevent corporate exploitation of both nature and society, we must be willing to challenge the conventional wisdom of corporatization, with common sense.

We must reject the conventional wisdom of “free-market” economics. Contemporary free-market economics recognizes no social or ecological boundaries. It recognizes no limits to growth – neither to human wants nor to resource use. Economics, as an academic discipline, provides the optimum means of “using things up.” There is nothing in contemporary economic theory concerning conserving, regenerating, or replenishing either natural or human resources to ensure the long run sustainability of human society. All constraints to economic exploitation must come either from sources external to the economic system – either in the form of legal limits imposed by society or physical limits imposed by nature. And, strong economic incentives exist to remove or avoid both types of limits. Economies are created by people for the benefit of people, not for the exploitation of people. However, if we are to prevent the economic exploitation of nature and society, we must be willing to challenge conventional economic wisdom, with common sense.

We must reject the conventional wisdom of the mechanistic approach to science. Contemporary science is appropriate for the study of dead things – such as physical, mechanical, and chemical processes – not living things. A living thing cannot be taken apart into pieces and reassembled without destroying its life and its essence. A machine is not self-making – it can't regenerate, restore, or reproduce. Farms and forests are living systems; they are not sophisticated machines. Farmers and foresters are living people; they are not computerized robots. Contemporary science may reveal many mysteries of the human body, even of the brain, but it tells us nothing of the mysteries of the human “heart,” of love, or the human soul. To understand human relationships or human ethics or morality, we must rely on our common sense.

We need not reject the concept of science as a means of knowing and understanding. But we must reject the proposition that there is only “one way” of knowing or understanding. Thomas Huxley, a noted English biologist, once wrote, “All truth, in the long run, is only common sense clarified.” Albert Einstein wrote, “The whole of science is nothing more than a refinement of everyday thinking.” We must learn to use science to “clarify and refine” our common sense, but not to replace it. If we are to prevent humanity from destroying itself, we must be willing to challenge the conventional wisdom of science with a new science, based on common sense.

Our common sense tells us there is something fundamentally wrong in today's society – including in agriculture, forestry, and natural resource development. We are told we shouldn't be concerned about the current financial situation; the current crisis is nothing more than a normal economic adjustment, and that the free-market ultimately works for the good of all. We are told we shouldn't be concerned about the environment, that we have no proof we are damaging the natural ecosystem, and after all, we can always find a technological fix for any ecological problem. We are told we shouldn't be concerned about what is happening to rural families and communities, rural people are just becoming more like urban people, and America is just becoming a more independent society. But, our common sense tells us that something is fundamentally wrong.

Our common sense tells us that we will not necessarily be better off in some occupation other than agriculture or forestry, no matter how much more money we might make. Our common sense tells that we can't continue to take from nature without giving something back to nature; no matter how smart we think we are. Our common sense tells us that positive relationships with other people, in families and communities, make our lives better, no matter how independent we may become.

Our common sense tells us that we must develop farming, forestry, and natural resource management systems that meet the needs of the present while leaving equal or better opportunities for the future. Our common sense tells us that our agricultural and resource development systems must be ecologically sound, economically viable, and socially responsible, if they are to be sustainable over time. Our common sense tells that the corporate, industrial model is not sustainable, and that we need a fundamentally different approach to the management of all natural resources.

Our common sense also tells us that we can and must find ways to live and work that nurture the personal, interpersonal, and spiritual aspects of our lives. We know that we must accept responsibility for ourselves, that our individual well-being is important to our quality of life. But we know also, caring for other people is not a sacrifice, but instead, that compassion for others adds to the quality of our own life. And, we know that taking care of the land is not a sacrifice, but instead, stewardship of the earth helps give purpose and meaning to our life. We know the quality of our life is enhanced when we make conscious, purposeful decisions to care for the earth and for each other.

Our common sense tells us, that if these things are true for personal life, they are true also for our professional life, and for our political and social life. Our common sense tells us we are whole people, and the same principles hold true for all aspects of our lives – individual, relational, and spiritual. If we are to make a *positive* difference in the future of agriculture and forestry in America, we must return to our common sense.