

Relevant Trends to Inform Strategic Choices

A White Paper
for the
SEDI Board Retreat

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Abstract

To inform the Sustainable Economic Development Initiative's (SEDI) retreat on their future strategic choices, SEDI's leadership requested a white paper on current trends affecting sustainable economic development. This paper reviews some of the major environmental, social and economic trends that define the challenge for future economic development. These trends include:

- the collapse of financial markets,
- the effort to restore those markets without a fundamental evaluation of their appropriateness,
- environmental trends including:
 - the failure of the environmental movement to stop environmental degradation
 - climate change consequences and timing
 - biodiversity losses
 - the trend toward a scarcity of cheap energy
- the limits of growth on a finite planet,
- educational system declines,
- health system breakdowns,
- the impacts of population growth,
- the implications of demographic changes,
- the inadequacy of incremental changes, and
- the failure of leadership

Other trends reveal there is reason for hope we can deal with these challenges, including:

- the beginnings of a great transition in human civilization,
- the opportunity to craft a transition plan based on design strategies proven effective by the evolution of natural systems (biomimicry),
- early indications the business community understands it must manage for the health of natural and social systems as well as of companies, and
- a surge of non-traditional groups working on these problems

Local community trends suggest some effective strategies for increasing local resilience and dealing with the challenges we face, including:

- worker-owned and co-op businesses,
- publically-owned and community banks,
- local investment programs,
- buy local campaigns,
- local currencies,
- community building through collaboration, and
- transition planning

While there are additional trends influencing our sustainable economic development initiatives, this review is intended to provide an adequate starting point for SEDI's deliberations and action plans for the future.

Relevant Trends to Inform Strategic Choices

Cliff Notes Version

The Sustainable Economic Development Initiative (SEDI) retreat will focus on how SEDI can best deploy its resources given the current trends affecting sustainable economic development and how they have changed since the organization's founding. While SEDI acts primarily locally, the threats and trends affecting sustainable economic development are mostly national and global. Some of the relevant trends define the challenges we all face, while others focus on creative approaches to a more worthwhile future.

The national and global trends that define our challenges include:

- The collapse of world financial markets reveals the dangers of too much global interdependency, and raises significant questions about the adequacy of our prevailing economic paradigm.
- Re-establishing a broken system without questioning the appropriateness of that system creates the conditions for future financial breakdowns and wastes the significant investments being made in recovery.
- Environmental trends call into question our ability to continue traditional economic growth and ways of living. Some of these trends include:
 - We have failed to stop significant environmental degradation, in spite of the herculean efforts and many successes of governments and environmental organizations.
 - Science tells us that our environment has at least nine interdependent biophysical thresholds. Crossing any of these thresholds will cause disastrous consequences. The latest research reveals we have already crossed three of them, one of which is the condition of our climate.
 - The significant climate destabilization that our actions have set in motion will redefine economic priorities.
 - The last 12,000 years of stable climate is an anomaly in earth's history. The stability of this "long summer" allowed the Agricultural Revolution and the development of civilization as we know it. Current research reveals that the climate disruptions

- we are producing can happen very quickly (eg, 1-3 years) and be long lasting (eg, 1,800 years).
- Biodiversity losses undermine our access to the best design solutions for our problems. These design solutions have been proven sound by evolution but are being lost.
 - Traditional and inexpensive energy sources are becoming less available, and their continued use will lead to accelerating environmental degradation.
- Other trends compound these challenges.
 - We are reaching the limits of economic growth on a finite planet.
 - The US has been unsuccessful in maintaining leadership in the education of our young people, and in providing high quality health care for our population, in spite of spending more per capita on these investments than most industrial countries.
 - Gains in energy, water, and other resource conservation are being overwhelmed by the growing demands of an increasing world population.
 - A large bulge in the number of older people in industrial countries will require support from a smaller productive population. At the same time, this smaller productive population will have to generate large amounts of savings to fund adaptation to climate disruptions, replacing aging infrastructure, funding our transitions to new energy sources, and restructuring our educational, health care, and agricultural systems.
 - In this situation the need for genuine leadership has never been greater, and seldom has it been less evident.

Other national and global trends hold out the promise of ways we are already reducing the impacts of these challenges and adapting to the changing world they will produce.

- The challenges we face are symptoms of a major transition in civilization, similar to the transitions in thinking, life styles, and human potential of the Agricultural Revolution, the Renaissance, and the Industrial Revolution. It is not yet clear whether we will have the wisdom and discipline to make this transition successfully, but some trends are moving in the right direction.
- Many civilizations in the past have overused their resources, failed to adjust, and collapsed. We can learn from the evolutionarily stable design principles of nature (biomimicry) to provide an

adaptation road map that could allow us to avoid collapse and respond effectively to the challenges we face.

- A business revolution is underway which recognizes that companies must implement revolutionary – not just incremental – changes in the way we live and work for the sake of both our companies and our world.
- A wide range of grass root and non-traditional groups are creating local initiatives which are determined to heal the wounds of the earth with the force of passion, dedication, collective intelligence and wisdom. While they are mostly unrecognized by politicians and the media, they are bringing about what may one day be judged the single most profound transformation of human society.

Some of the local initiatives that respond to the economic development implications of these national and global trends include:

- Worker-owned and co-op businesses
- Publically-owned and community banks
- Local investment programs
- Buy local campaigns
- Local currencies
- Community building through collaboration
- Transition planning that focuses on community resilience in response to the challenges of peak oil, climate change and the economic crisis

The synergies among these and other related local initiatives can create greater community resilience through diversity, redundancy, self-sufficiency, social solidarity, and an aversion to excessive integration. This resilience is the foundation for successful and sustainable economic development because it includes social and environmental well-being as integral components.

While these are not all the critical global, national, and local trends underway, I hope they provide an appropriate starting point for SEDI's examination of the critical choices affecting its future.

Relevant Trends to Inform Strategic Choices

Introduction

After almost 5 years of service, the Northern Arizona area's Sustainable Economic Development Initiative (SEDI) has scheduled a retreat to focus on 1) how economic development conditions and the issues needing attention have changed since the organization's founding, and 2) how SEDI can best deploy its resources given the current trends affecting economic development.

The trends most relevant to SEDI are local ones: social, economic and environmental trends. But the context for these local trends is created by national and global trends. These local, national and global trends are intertwined and interdependent.

We can think about these national and global trends as falling into two categories. First are the trends that define the challenges and point to the consequences of our current direction. The second group of trends reframes existing conditions to reveal some of the ways in which we can reduce the impact of coming changes and adapt to those changes successfully. In other words, the strategy recommended by most visionaries today is "reduce the impact of coming changes and adapt to them". This is a shift from the more common strategy today – "become sustainable and live happily ever after".

National and Global Trends and Conditions that Define our Challenges

Some of the most important national and global economic, social, and environmental trends currently influencing the economic development issues facing Northern Arizona include:

- The Collapse of Financial Markets – The collapse of national and global financial markets has destroyed trillions of dollars of stock market and real estate wealth; created near historic levels of unemployment; undermined the ability of city, county and state governments to provide essential services and make critical long term investments in areas such as education; generated deep-seated fears that polarize social groups; weakened social structures; chipped away at the foundations of democracy; and strengthened the misconception that we can't afford environmental

responsibility because it comes at the expense of economic growth and people's jobs. This collapse came as a result of a failure of national leadership, greed, and the inability of our current economic paradigm to manage for anything but maximum growth. (See Joseph Stiglitz, Freefall, 2010; and David Orr, Down to the Wire, 2010)

- Consequences of a Return to "Normal" – The reaction to this financial collapse from cities and counties to nations around the world is to survive through layoffs and cutbacks in services until massive federal government investments can return the economy to "normal." There is very little mainstream discussion of whether our traditional economic system's "normal" is a goal worth reestablishing and preserving. The pursuit of this unexamined goal could have many negative consequences, including future financial collapses and a waste of the significant capital investments being made to stimulate recovery. These investments to subsidize the return to "normal" are creating a debt burden that will severely limit the options of future generations. These options are further limited by our ever increasing consumption of environmental resources faster than they can recover, and the failure of our national leaders to acknowledge the \$51 trillion of existing unfunded entitlements (ie, debt obligations) written into law (eg, social security, Medicare, etc). (See Kotlikoff and Burns, The Coming Generational Storm, 2004; and David Korten, Agenda for a New Economy: From Phantom Wealth to Real Wealth, 2009)
- Environmental Challenges – While the collapse of the economic system is undermining environmental protections in the near term, over the last several decades a variety of other factors have produced an increasingly downward trend in global environmental health. Reversing this decline requires a significant movement away from the economic goal of unlimited growth to a new reality that acknowledges limited natural resource availability, and the need to adapt to significant natural system adjustments such as climate volatility. Several recent publications highlight the primary changes in environmental conditions to which we will have to adapt, and within which we will have to reconsider the meaning of economic development.
 - The inadequacy of environmentalism
 - ✓ The environmental movement has grown in strength and sophistication, and yet environmental conditions continue to go downhill fast. If we look at real world conditions and

trends, we see that we are winning victories but losing the planet, to the point that a ruined world looms as a real prospect for our children and grandchildren. We are not saving the planet. We have instead allowed our only world to come to the brink of disaster.

- ✓ Even if we continue to do exactly what we are doing now, with no growth in the human population or the world economy, the world in the latter part of this century will be unfit to live in. Of course, human activities are not holding at current levels – they are accelerating dramatically, and so too is the pace of climate disruption, biotic impoverishment, and toxification. (See James (Gus) Speth, The Bridge at the Edge of the World, 2008; and his New American Environmentalism, 2010)

- Crossing critical biophysical thresholds
 - ✓ Scientists have identified nine interlinked biophysical thresholds which would have disastrous consequences for humanity if crossed.
 - ✓ The nine biophysical thresholds involve:
 - Δ Climate change conditions
 - Δ Rate of biodiversity loss
 - Δ Nitrogen cycle disruption
 - Δ Phosphorus releases into the oceans
 - Δ Stratospheric ozone depletion
 - Δ Ocean acidification
 - Δ Global fresh water use
 - Δ Changes in land use
 - Δ Atmospheric aerosol loading
 - Δ Chemical pollution levels
 - ✓ We have already crossed the first three of these planetary thresholds, and the trends in the remaining six are negative. (See “A Safe Operating Space for Humanity,” Nature, September, 2009)

- Adapting to climate changes
 - ✓ Due to our refusal to live within natural limits, we now face a long emergency of rising temperatures and sea-levels, as well as a host of related problems that will increasingly undermine human civilization. Climate destabilization – to which we are already committed – will change everything, and will prove the folly of those betting on quick technological fixes or minor

adjustments in the way we live as adequate solutions to our challenges.

- ✓ James Lovelock estimates that the adjustments forced by climate volatility will leave a global human population of less than 1 billion and a world with 33-50% fewer species.
 - ✓ "The real fault line in American politics is not between liberals and conservatives.... It is, rather, in how we orient ourselves to the generations to come who will bear the consequences, for better and for worse, of our actions." (See David Orr, Down to the Wire: Confronting Climate Collapse, 2010)
- Climate change characteristics and tipping points
- ✓ For the past 12,000 years, Earth's stable climate has allowed human civilization to flourish. But this long, benign summer is an anomaly in the Earth's history and one that is rapidly coming to a close. The radical experiment of our modern industrial civilization is now disrupting our planet's very metabolism and our future hinges in large part on how the Earth responds. The greatest danger is not extreme yet discrete weather events, but profound and systemic disruptions on a global scale. Contrary to the pervasive belief that climate change will be a gradual escalator ride into balmer temperatures, the Earth's climate system has a history of radical shifts – dramatic shocks that could lead to the collapse of social and economic systems. Some of those changes are quite rapid, such as the Younger Dryas Ice Age that lasted for about 1,300 years, and was recently calculated to have developed in only one to three years. The question is no longer how can we stop climate change, but how can we as a civilization survive it.
 - ✓ Only by restructuring our global civilization based on the principles that have allowed our ancestors and all other life on Earth to survive catastrophe – diversity, redundancy, a degree of self-sufficiency, social solidarity, and an aversion to excessive integration – can we restore the flexibility needed to weather the trials ahead. (See Dianne Dumanoski, The End of the Long Summer, 2009; and Fred Pearce, With Speed and Violence: Why Scientists Fear Tipping Points in Climate Change, 2007)

- Biodiversity losses
 - ✓ Diversity is one of the primary features of resilient systems, and constitutes an environmentally stable design library critical to our ability to adapt our communities to coming environmental, social and economic system changes. Biodiversity also helps keep natural systems from passing undesirable tipping points when those systems are stressed.
 - ✓ Our social and economic activities are destroying the “books” in this library at a rate up to 1,000 times faster than normal. More than 30,000 species are wiped out every year. As we seek the solutions to the challenges we face, the most reliable sources of proven sustainable designs are increasingly unavailable. (See Richard Leakey, The Sixth Extinction: Patterns of Life and the Future of Humankind, 1995)

While these are some of the trends with significant global impacts, there are many other well known trends which further define the severity of the challenges we face. Several of these trends are having immediate impacts, such as the growing cost of health care and educational system dysfunctions. Others will play out over several decades. Some of these trends that will influence economic conditions in Northern Arizona include:

- Declining availability of traditional energy sources – The conversion from cheap and abundant petroleum and coal based energy to other sources of energy is being forced by the limits of these natural resources and their destructive consequences. This conversion could be quite economically disruptive. Cheap and abundant petroleum and coal based energy have been the source of both tremendous economic growth, and the destabilization and destruction of environmental systems. All our future energy options are increasingly expensive in their energy return on energy invested. This transition will dramatically alter economic systems (and the meaning of economic development), but could also contribute to stabilizing and restoring ecosystem health if managed astutely.
- Limits to quantitative economic growth – Economic growth is generally measured in gross domestic product (GDP), or the value of goods and services produced and sold in an economy. By this measure the world’s economy grew more than 600% (from \$5.3

trillion to \$37.2 trillion) between 1950 and 2001, while population grew “only” 144% (from 2.5 billion to 6.1 billion) over the same period. This economic growth cannot continue because of resource depletion and the limits of our ecosystem’s ability to absorb our pollution and waste. Resource substitution and technology innovation may slow the impacts of resource limits, but we cannot continue quantitative growth indefinitely. Such growth is unsustainable on a finite planet. In addition, this way of thinking about growth is misleading and does not reflect what we really value. In Robert Kennedy’s words,

“Our gross domestic product counts (as growth) air pollution and cigarette advertising, and ambulances to clear our highways of carnage. It counts special locks for our doors and the jails for those who break them. It counts the destruction of our redwoods and the loss of our natural wonder in chaotic sprawl. It counts napalm and the cost of a nuclear warhead, and armored cars for police who fight riots in our streets. It counts the television programs which glorify violence in order to sell toys to our children. Yet the gross domestic product does not allow for the health of our children, the quality of their education, or the joy of their play. It does not include the beauty of our poetry or the strength of our marriages; the intelligence of our public debate or the integrity of our public officials. It measures neither our wit nor our courage; neither our wisdom nor our learning; neither our compassion nor our devotion to our country; it measures everything, in short, except that which makes life worthwhile. And it tells us everything about America except why we are proud that we are Americans.”

The necessary transition from the traditional concept of growth will produce a regime of stable or declining quantitative growth in the world’s economies. However, growth in quantity can be replaced by growth in the quality of economic activity and of social conditions if we are strategic in our choices. This will also require a redefinition of the concept of economic development in a no-net-growth economy.

- Growth in inequality – The benefits of the spectacular economic growth we have achieved has not been distributed equally. The real income of 90% of American taxpayers has declined over the last 30 years, while the index of income inequality (the Gini coefficient) has risen steadily. In other words, the belief that greater economic prosperity will raise all boats is a myth. All this economic growth does not even make us happier. Most indices of happiness or well-being show no growth or even a decline over this same period. This requires a rethinking of what we want from economic development.

- Educational system failures – Our country has moved from first to below average in educational performance among industrial nations, in spite of having the highest per capita spending on education. Decades of throwing more money at the problem has not worked. To prepare students to design new social and economic systems, and adapt to the ecological system disruptions that are already baked into our future will require a fundamental restructuring of our educational paradigm.
- Health care system failures – America has also slipped from first to well below every other industrialized nation in the quality of our health care, especially in terms of dollars spent. With the highest per capita spending on health care, we are 28th among countries in life expectancy, and 37th of 190 countries in a broad index of health care outcomes. While the current debate on health care is beginning to reveal the problems, there is as yet no agreement on the solutions. Transitioning our current system to one that works and is affordable will require significant changes in the economic and social systems that make up the health care industry – one of the largest in our economy at 17% of GDP.
- Population growth – The impact of human population growth is the often unacknowledged factor underlying most of these trends as well as others. Environmentalists have made significant progress fighting to improve air and water quality, reduce energy use and waste production, limit habitat and species losses, and minimize overall resource consumption. However, all of this progress has been overwhelmed by the needs of growing populations for more water, energy, and other resources, and the more waste and pollution produced in the process. Adding more than another 2 billion people to the earth's population by mid century will continue to swamp current levels of progress in saving the environment unless we either radically increase our rates of progress, or reduce our population growth.

- A demographic challenge – The population growth that followed World War II stimulated an acceleration of economic growth in industrialized nations. This population growth has not been matched in the last two decades. The resulting demographic bulge in aging citizens is characterized by health problems exacerbated by environmental pollution, life styles, and economic stresses. To help meet these challenges, America has made aging citizens the beneficiaries of social safety net commitments (eg, social security, Medicare, etc) estimated at \$51 trillion. The per capita social safety net commitments of other industrialized countries are even greater than in the US. Unfortunately, while the costs of these entitlements are increasing, the economically productive population has not kept pace. In coming years, citizens in their most productive years will have to bear the increasing per capita burden of funding these entitlements. If other trends require a fundamental reduction or at least stabilization in quantitative economic growth, these entitlementment may also threaten our ability to accumulate the capital to fund the transitions in energy sources, education, health care, agriculture, infrastructure replacement, etc. necessary to adapt to the significant changes in environmental conditions that are coming.
- The inadequacy of incremental changes – In this situation, environmental, social, economic, political, and life style alternatives which are “less bad” are an insufficient response to the challenges we face. Reducing the growth of carbon emissions or other

pollution, for example, is still a growth in pollution, just as resource use and waste are still growing in spite of heroic levels of conservation and recycling. We need a transformation in our thinking and acting sufficient to reverse our environmental, social and economic trends if we are to meet the challenges we face. Hopefully, it will not take a prolonged, devastating catastrophe to force us to transform our thinking.

- A failure of leadership – At the same time as all these challenges are building to a climax, our political and policy leaders are not even paying attention. They are locked in endless battles of partisanship and positioning for the next election. This polarization is rending the fabric of community, rendering democracy impotent, and severely limiting our chances of developing the complex, nuanced solutions necessary to meet the challenges we face. As David Orr noted, “Never has the need for genuine leadership been greater, and seldom has it been less evident. We cannot be ruled by ignorant, malicious, greedy, incompetent, and shortsighted people and expect things to turn out well.”

This list of challenging trends may be exhausting but is not exhaustive. There are many others that are important, but these are some of the biggest and most complex. The timing and severity of the impact of these trends is uncertain. Nevertheless, these changes are almost certain to have an overwhelming impact within the lifetimes of most people alive today.

Faced with the seemingly overwhelming scale and complexity of these challenges, the weak and selfish among us are likely to respond by just “going fishing”. Some would describe this fiddling-as-Rome-burns response as normal human nature, but I don’t believe this is the best response we can muster. We have not innovated our way through the major threats and transitions of history by passively giving up. The majority of people will rise to the occasion given the proper tools and leadership. If the tools or leadership don’t show up, they will make their own tools and find leaders among their neighbors or in themselves. There is a cost for the “good life” we have enjoyed over the last 50 years, and the heroic among us will step forward to do what is necessary to pay that price. As you will see in a second set of trends, the arc of history is already starting to turn in favor of real solutions.

National and Global Trends Dealing with the Problems

There are some national and global trends that recontextualize the challenges we face, and hold out the promise of ways we can reduce the impact of these challenges and adapt to the changing world they will produce.

- The Great Transition – We are at another of the great transitions in the history of civilization. As it was in the transitions from hunter-gathering to agriculture, from the Middle Ages to the Renaissance, and from craft guilds to the Industrial Revolution, our current social, economic, and environmental beliefs and practices are inadequate to the next generation of challenges we face. This transition has been underway for some time, and can be characterized as the evolution from Empire to Earth Community. The last 5,000 years of Empire can be described as social systems with hierarchical structures, led by power-hungry elitists using command and control systems, designed according to a mechanistic paradigm of how things work and a survival of the fittest interpretation of relationships, to generate economic and political power for their own benefit. The Earth Community system that is emerging is based on life-centered, egalitarian, sustainable ways of ordering human society utilizing democratic principles of partnership, collaboration and cooperation. The balance of power is still held by Empire, but the trends favor the triumph of the Earth Community paradigm. If our civilization cannot accomplish this transition it will reap the full consequences of the negative trends described above. (See David Korten, The Great Turning, 2006; and Gar Alperovitz, America Beyond Capitalism, 2005)
- Lessons from History and Nature – Many civilizations in the past have overused their resources, failed to adjust, and collapsed. Only a few have adapted to their changing conditions. Sometimes it took a catastrophe to provide enough motivation to change. Joseph Tainter's study of 19 complex civilizations which failed reveals that throughout history "people will rarely acknowledge an accustomed way of life is unsustainable except in the face of prolonged, devastating failure." Our current civilization has an advantage because our study of ecosystems reveals system design principles that billions of years of evolutionary selection have proven to be robust and sustainable. These principles include diversity, redundancy, a degree of self-sufficiency, social solidarity, and an aversion to excessive integration – all principles consistent with the Earth Community paradigm. Together they provide us with an

adaptation road map that could allow us to respond effectively to the challenges we face, should we choose to do so. (See Joseph Tainter, The Collapse of Complex Societies, 1988; Jared Diamond, Collapse: How Societies Choose to Fail or Succeed, 2005; and Janine Benyus, Biomimicry, 1997)

- A Business Revolution – A revolution is underway in today's organizations. Companies around the world are boldly leading the change from dead-end "business as usual" tactics to the transformative strategies that are essential for creating a flourishing, sustainable world. There is a long way to go, but the era of denial is ending. Today's most innovative leaders are recognizing that for the sake of our companies and our world, we must implement revolutionary – not just incremental – changes in the way we live and work. (See Peter Senge, The Necessary Revolution, 2008)
- Grass Root Leadership – Across the planet, groups ranging from ad hoc neighborhood associations to well-funded international organizations are confronting issues like the destruction of the environment, the abuses of free-market fundamentalism, social justice, and the loss of indigenous cultures. The appearance of these and other systemic problems that are genuinely global in scope are being met by the growth of a worldwide movement of local initiatives which are determined to heal the wounds of the Earth with the force of passion, dedication, collective intelligence and wisdom. They share no orthodoxy or unifying ideology, they follow no single charismatic leader, and they remain supple enough to coalesce easily into larger networks to achieve their goals. While they are mostly unrecognized by politicians and the media, they are bringing about what may one day be judged the single most profound transformation of human society. (See Paul Hawken, Blessed Unrest, 2007)

Although it is not often clear how these and other positive trends will enable us to handle each of the specific challenges we face, the only chance we have is through acting collaboratively to build resilient communities everywhere, as well as through building alliances among these communities to affect global policies for change. If we take the path of Empire, devolving into power struggles, with command and control solutions which favor the powerful at the expense of everyone else, and competing for the last crumbs of scarce resources with a zero-sum-game mindset, we will destroy any chance we have for a

successful adaptation to the changes underway. This path would lead to the realization of James Lovelock's prophecy of emerging from our transition with less than 1 billion people left worldwide – in other words, with the death of 6 out of every 7 people on the earth today.

Local Trends

While the challenges we face are national and global as well as local, most of us can only act locally. The opportunity is to develop local initiatives that meet these challenges by increasing local resilience, diversity, environmental responsibility, economic vitality, meaningful work, social justice, collaboration, cooperation, and independence as communities. We should also try to accomplish these objectives in ways that contribute to structural changes in the national and global trends that threaten us. Fortunately, a few communities have pioneered local initiatives that point the way toward effective local responses to the sustainability challenges of our times. Some examples include:

Worker-owned businesses

In a worker-owned or co-op business the majority of its workforce own shares, and the majority of shares are owned by the workforce. While most worker-owned ventures are small businesses focused locally, some have grown to national scale.

Worker-owned businesses are not new, but are growing in popularity because of their successes. The Mondragón Cooperative Corporation, for example, is a holding company of co-op, worker-owned businesses in the Basque region of Spain. Begun in 1956, Mondragón is now an integrated collection of 110 industrial, financial and retail co-op businesses with more than 100,000 worker owners and total revenues of over \$24 billion per year. It is the 4th largest industrial, and the 7th largest financial group in Spain.

In the US, Cleveland's Evergreen Cooperative is following a similar holding company path. Last year it launched the Evergreen Cooperative Laundry (ECL), designed to be both profitable and environmentally responsible. Occupying a LEED silver building, ECL uses energy efficient laundry equipment and recycles its water and heat. Eight initial employees are expected to grow to 50. Each will

earn a living wage plus health benefits, and estimates are they will build an ownership stake of as much as \$65,000 after 7 years of employment. Cleveland's mayor Frank Jackson was so impressed by Evergreen's creation of meaningful, good paying jobs that his Department of Economic Development recently made a low interest loan of \$1.5 million to the Evergreen Cooperative Laundry.

Worker-owners also enjoy greater job security than traditional workers. When the current recession hit Mondragón, for example, worker-owners and managers decided that 20% of the workforce would leave their jobs for a year at 80% pay plus free training for other work if they wished. The group would be decided by lottery, and if the company was still overstaffed a year later, the first group would return to work, and a second group would take a year off.

Evergreen also developed Ohio Cooperative Solar (OCS) which began with weatherization services and has branched out to installing solar panels on the roofs of the city's biggest nonprofit health, education, and municipal buildings. These institutions lease their roofs to OCS, and in turn will purchase electricity from them. On completion, OCS and its worker-owners will own the assets and the income from the largest installation of solar panels in the Midwest.

Plans are also underway for Evergreen City Growers, a year-round hydroponic greenhouse in the heart of Cleveland that will produce 3 million heads of fresh lettuce, and nearly 1 million pounds of basil per year. The company will employ about 50 local, low-income residents.

Cleveland is an unlikely site for such entrepreneurial growth because it has shrunk from the 5th largest city in the country 60 years ago to one of the 5 poorest cities in America. This economic innovation is even more remarkable in the midst of a severe recession.

Part of the explanation for this innovation is that Evergreen was designed to leverage the strength of the city's "anchor institutions" – large institutions with a long-term commitment to the city. Beginning with the Cleveland Foundation, the Ohio Employee Ownership Center at Kent State University, and ShoreBank Enterprise, the anchor tenants now include other local foundations, hospitals, nursing homes, banks, and City Hall. These "anchor tenants" together purchase billions of dollars of goods and services each year, and they have a self-interest in ensuring that their surrounding neighborhoods are safe, healthy, and vital communities. The Evergreen co-ops are structured to serve the anchor tenants' ongoing needs for laundry services,

energy, food, janitorial services, records retention, etc. Instead of buying these services from out-of-town vendors, buying from an Evergreen co-op creates more and better local jobs and local wealth, multiplies the impact of local dollars by keeping them in the community, and regenerates the local economy, particularly in the city's most distressed neighborhoods.

The challenge for Evergreen, and other worker-owned groups such as Mondragón, is raising the capital to respond to new business opportunities. Evergreen is generating its own capital to move to scale and create more employment by starting the Evergreen Cooperative Development Fund (ECDF). Modeled after Mondragón's *Caja Laboral* bank, ECDF will receive investments of 10% of pre-tax profits from Evergreen co-ops once cash flow permits. Thus, each of the co-ops will become investor-owners of the businesses created by the Development Fund.

Publicly Owned and Community Banks

Like Evergreen Cooperative and Mondragón that have to establish their own financing affiliates to provide capital to their worker-owned businesses, local businesses across the country are starving for financing. This limits their ability to contribute to local economic recovery. When North Dakota farmers faced a similar situation in the credit crisis of 1919, the state responded by establishing the publically owned Bank of North Dakota (BND). The state deposited all its tax receipts and other revenue sources into BND and was able to provide the credit its farmers and businesses needed. Ninety years later, BND continues profitably, cooperating on local business and farm loans with community banks, credit unions and independent banks; underwriting municipal bonds; becoming one of the leading student loan banks in the nation; and serving as the state's Mini-Fed. Partly as a consequence of this tradition of keeping state money active in the state, North Dakota is one of only two states on track to meet its 2010 budget, they have the lowest unemployment rate in the country, and the largest budget surplus in state history.

BND's ability to use state funds to profitably make credit available to local business and citizens, thereby stimulating local economic activity, has attracted the attention of several other states. Florida, Illinois, Oregon, Massachusetts, Idaho, California, Virginia, and Vermont all have politicians promoting public banks, or feasibility studies underway. Washington State already has legislation pending to

establish its own state bank. In 2009, Nobel prize winning economist Joseph Stiglitz said the federal government would have been better off funding a federally-owned bank than doling out trillions of dollars to the private investment banks and CEOs who speculated their way into bankruptcy. Even with more conservative leveraging of deposits than in many banks, Florida could earn billions offering 6% CDs, 2% mortgages, and 6% credit cards through the proposed Bank of the State of Florida, according to an analysis of Dr. Farid Khavari. I wonder if the economics of scale would work for a city, county, or Northern Arizona region public bank.

Community banks and credit unions also have a much better track record at investing in local businesses and stimulating local economic activity than regional or national banking organizations.

Investing in Your Local Community

Unfortunately, a maze of regulations and licensing make it very difficult for small local businesses to accept investments from local citizens. Fortunately, there are a growing number of alternatives for citizens who would rather make socially responsible, sustainable investments in their local community rather than seeing their savings vaporize in stock market fluxuations, or be invested in businesses that trash the environment and local communities in the interest of greater profits.

Investing in micro-lending pools active in your community is one option. Another is simply making deposits in a community bank or credit union, which then uses those funds to make loans to support the local economy. While the returns on deposits might not be as high as investing in a micro-lending pool, the safety of federal deposit insurance, or the National Credit Union Share Insurance Fund, makes community bank or credit union deposits an important component of any local investment strategy.

Fortunately, there are additional alternative models. For example, RSF Social Financing is an investment fund that has made sustainable and locally oriented investments for 72 years. Community loan funds, such as the Vermont Community Loan Fund (VCLF) and The Redevelopment Fund (TRF) in Philadelphia, offer another model. While not FDIC insured, these funds usually implement investment safeguard that have generally performed well. VCLF, for example, has operated for over 22 years without the loss of a single dollar. Worker-owned

business investment funds such as the Evergreen Cooperative Development Fund provide another option for investment in local businesses. The Community Investing Center provides background information and access to community loan funds and community loan pooled funds in local communities around the country.

Community Supported Agriculture (CSA) involves investing in a share of a local farm's harvest, and is another way to invest in your local economy. So is an investment in a Community Supported Enterprise (CSE). Under CSE, each investment in a participating business pre-pays for future delivery of products or services from that local business. This provides a local business with access to capital for growth by pre-selling goods or services.

In summary, community investing is not as easy as calling your broker and placing an order for a listed security, but the benefits are measured in both financial returns, and in the wide range of returns from living in a community with a stronger economic base where you can also have the satisfaction of shopping in support of your investments.

Buy Local Programs

"Buy local" programs are closely related to community investing since shopping at local businesses strengthens your community's economic base more than shopping at a big box store or out-of-town chain. Several economic analyses indicate that 45¢ of every dollar spent in a locally owned business circulates in the community creating more economic value, vs. only 13¢ of every dollar spent in an out-of-town based chain.

Some analysts claim that it usually costs more to shop local, because big box and national chain stores have greater scale economies which allow them to offer comparable goods at lower prices. While this may seem logical, it is often not borne out by the facts when all the costs are considered. First, scale economies are not often as great as claimed, particularly when small-scale manufacturing options are available. Also, scale advantages are also diminished when national chain stores source products in China or food in Argentina, then ship them thousands of miles to your local store. Chain stores don't include the cost of public supported transportation infrastructure, or transport related carbon emissions, offloading them onto society to pay for separately. Local businesses usually source their products

more locally, reducing transport emissions. Second, chain stores often impose other costs on the community by paying low wages with few benefits including health care which wind up being paid in one way or another by the community through taxes. Local stores are more likely to pay a living wage with benefits. And finally, chain stores respond to economic changes by laying off workers or closing stores with little thought for the community. Local stores tend to retain workers longer, partly because they often outperform national chains in tough economic times. A recent nationwide survey of 1,800 independent businesses, for example, found they grew sales rather than suffering from the sales downturns experienced by national chains during the 2009 holiday season. The challenge is educating shoppers that the real cost of their national chain purchases include higher environmental costs, higher public infrastructure costs, and higher taxes to cover the social costs not paid for by those national chains.

The result is a growing number of cities with buy local campaigns. Over 130 cities or regions have “buy local” groups, up from 41 in 2006. In Flagstaff, the Chamber of Commerce supports a “buy*dine*stay” program focused primarily on tourists. Buy local campaigns that are well executed make a big difference for local businesses and their communities. A survey by the Institute for Local Self-Reliance found that local stores in communities with “buy local” campaigns reported a three times larger increase in 2009 holiday sales than businesses in cities without such campaigns.

Farmer’s markets, community supported agriculture (CSA), and even community gardens are also versions of buy local initiatives, providing fresh, healthy, and better tasting food without long, expensive and polluting transportation. Local sourcing of food also creates greater local food independence, and can help keep food processing revenue in the community. For example, a 2002 study found that the 213 ranches and farms in Coconino County lost \$10 million each year by sending their food out of the county to be processed by middlemen in regional or national commodity markets, who then ship it back to the county at significant markups. If kept local, that food processing business could be a substantial addition to local economic development.

Local Currencies

A local currency is printed locally and is not backed by a national government. It is intended to trade only in a small area, among

subscribing participants, and amounts to a formalized barter system. Over 3,000 communities around the world currently offer some version of a local currency.

The reason for their growing popularity is that local currencies provide several benefits, including:

- Staying in the community which reinforces buy local initiatives
- Circulating more rapidly than national currencies, resulting in greater overall economic activity
- Enabling the community to more fully utilize its existing productive resources, especially unemployed labor, which has a catalytic effect on the rest of the local economy
- Allowing the barter of services for many social transactions that are not a formal part of the economy (eg, child care, elder care, trading chores or special craft skills, and tutoring). As such, a local currency also enhances the ability of a community to stimulate building social capital.

Most local currencies take one of two forms: those with a dollar value such as Berkshares in Massachusetts (which are taxable income where they are spent), and those with a time value such as Ithaca Hours in New York (which are not taxable since the IRS does not value social capital transactions). A few, such as Flagstaff Neighborly Notes, tried to combine the two measures of value.

Edgar Cahn, the founder of Time Dollars in Chicago described his motivation as going way beyond the many economic development benefits of a local currency. In his words, "People are assets; they are our real wealth. We have to redefine those activities we honor as work to include the tasks essential to our species, like rearing children, building community, and caring for elders... No more throw away people. It is time we declare that we will not demand subordination, peonage, or passivity as the price for providing help (through government agencies) to a human being in need."

TimeBanks USA offers a start-up kit that includes instructions and software for starting a time based currency. There are also dozens of books and hundreds of articles available on this subject.

Community Building Through Collaboration

An important capability that supports the success of all these efforts is the capacity of the community to operate collaboratively. To the extent that city and county governments can expand their collaboration with local non-profits and businesses, they can effectively provide more services in times of decreasing budgets.

Successful examples abound from large to small cities across the country, including:

- ✓ New York City's collaboration with watershed communities and organizations to protect its water quality, avoiding the need for a \$6 billion water filtration plant
- ✓ Los Angeles' collaboration with the non-profit Tree People resulted in volunteers planting tens of thousands of trees over the last decade. Their Cool Schools program, for example, has replaced 60 million square feet of asphalt with trees in city schools, and their overall effort has absorbed carbon, reduced pollution, and helped reduce the \$100 million per year paid by LA citizens for increased power to cool their homes on hot days.
- ✓ Detroit created a renaissance in its poor neighborhoods through collaboration with a local foundation, a university, and community organizations to develop an entire portfolio of initiatives to restore local neighborhoods including healthy food through community gardens in poor neighborhoods, mentoring and tutoring to disadvantaged students, and Summer work and art programs for poor students. They call it bootstrap economics.
- ✓ The people of Burlington Vermont have discovered "we are better together." Their culture of engagement and collaboration, and their cohesive civic infrastructure of connected people, organizations, and programs have built a strong, resilient community.

Collaboration is a key SEDI strategy, both to support existing community efforts being more effective, and to model the power of this approach. Many methodologies and programs are available to help build communities through collaboration training, including the US Social Forum, and Tuft University's Positive Deviance Initiative. The most effective way to build community collaboration is simply to get

started working on what needs to be done with an attitude that you can't do it by yourself, and you don't know all the answers.

Transition Planning

Groups in communities across the country, and around the world, are collaborating to evolve their ideas about economic development because of the looming impacts of the trends we have reviewed. These local initiatives seek to create greater community resilience through diversity, redundancy, self-sufficiency, social solidarity, and an aversion to excessive integration. These characteristics enhance the chances that a community will make a successful transition away from the limitations of Empire, and adapt to the significant environmental changes we face.

Transition Initiatives is a grassroots movement that works to build community resilience in response to the challenges of peak oil, climate change and the economic crisis. Begun in 2008, groups in Portland OR, Oakland CA, San Francisco CA, Austin TX, Spokane WA, Lawrence KS, Cleveland OH, Chapel Hill NC, Boulder CO, and many other cities around the world have already developed official city resolutions or produced task force reports on how their community can respond effectively to climate change, peak oil, and the economic crisis.

Closing Thoughts

A quick review of these local initiatives may give the impression that they are not focused on major environmental sustainability issues. That focus is intentional for two reasons. First, many programs are already focused on environmental sustainability, from city, state, regional and national sustainability programs to the work of a large and increasing number of environmental NGOs. These energy efficiency, water conservation, air quality, renewable energy, recycling, green building and many other programs are robust and familiar to most communities. These programs are already making major contributions to environmental improvements in spite of the fact that they are being overwhelmed by population growth. Still, they are buying us valuable time to develop better responses. As a result, I did not spend time reciting the trends in local environmental programs with which most are familiar. Second, the initiatives described focus on the less talked about concrete programs that fuel responsible, local

economic development. By developing community resilience and self-sufficiency, local economic development also stimulates stronger, more robust social systems, and supports greater environmental responsibility. As such, these local economic initiatives contribute to the full range of sustainability, not just the environmental component.

Of course, communities are developing many more local programs than those described above to respond to the trends and transitions all communities face. Local innovations in health care in some areas around the country, for example, provide much better responses to health care problems than the compromise national legislation recently passed. Educational institutions, from grade schools to universities, are developing sustainable curricula, creating school gardens, implementing service learning, and many other innovations not incorporated in the President's proposed school reform program. All of these local innovations provide examples of what works that can be adapted to meet the specific needs of Northern Arizona communities.

These communities, and the many others that have adopted the various local initiatives described above, demonstrate that individually these initiatives can make an important contribution to community resilience and economic performance. The greatest impact, however, comes from looking at a community as a system, and customizing a mix of these initiatives that is both appropriate to each community and creates maximum synergies across initiatives.

What if there was an organization in Northern Arizona that took responsibility for both supporting short-term sustainable economic development in traditional ways, and also collaboratively planned and supported a system-wide implementation of a mix of the local initiatives that would best prepare Northern Arizona communities for the environmental challenges and the resulting evolution of economic conditions they now face? Such a planning and implementation effort could start with what we have, implement what we can in the near term, and develop organically from that base guided by an overall plan.

The local economic development trends described above are not exhaustive, and there are many good resources to investigate for additional programs and details. Hopefully, this review and the attached resource list provide enough to start. I also hope this review of trends stimulates your thinking about how SEDI might adapt to the coming changes in economic conditions and environmental systems. In doing this thinking, it is worthwhile to investigate the lessons of the

non-profit organizations judged by their peers to be the most effective and admired. These lessons include the finding that it is more important to have a significant impact in the world than it is to operate a well-run organization (see: Crutchfield and McLeod Grant, Forces for Good: The Six Practices of High-Impact Nonprofits, 2008).

I would like to close with an adaptation of a quote from Paul Hawken in Blessed Unrest that clearly captures what is required.

Healing the wounds of the earth and its people does not require saintliness or a political party, only gumption and persistence. It is not a liberal or conservative activity; it is a sacred act. It is a massive enterprise undertaken by ordinary citizens everywhere, not by national or global governments, agencies or oligarchies.

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These references are for articles on topics discussed in the text. Most of the relevant books are listed in the text, although a few books of broader relevance are included in these references. The list also includes links to organizations or NGOs that provide education and services in the areas discussed. The references appear in the same order as the topics appear in the text. They represent only a small portion of the readily available literature on each of the subjects discussed, but they provide a starting point for those interested in more information on the topics presented.

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