Here is part 4 of a draft vision statement issued by a group that has tentatively named itself ESDA -- Envisioning a Sustainable and Desirable America. (See http://iee.umces.edu/ESDA/, and www.futuresearch.net.) Having a shared vision of the future -- a goal -- is essential. If we don't know where we are trying to go, how can we tell whether we are getting there or not?

The ESDA group says, "We hope you can take the time to read our vision, and offer us your comments. Would you like to live in this world? Are the elements of our vision with which you disagree? Are important pieces missing? Please send your feedback to farley@cbl.umces.edu," the E-mail address of Josh Farley at University of Maryland.

The draft vision statement is organized into five parts: Worldviews, Built Capital, Natural Capital, Human Capital and Social Capital. In this installment, we begin publishing the "Human Capital" section:

IV. Human Capital

Human capital has been defined as the practical knowledge, acquired skills and learned abilities of an individual that make him or her potentially productive and thus equip him or her to earn income in exchange for labor. In America in the year 2100, the definition of human capital itself will change -- no longer will there be an emphasis solely on productivity in terms of income exchanged for labor. The primary emphasis instead will be on knowledge, skills and abilities that make people productive members of society, that is, that help people contribute to the goals of society. The goals of America in 2100 will be far more than simply earning income.

Education will be integrated into everyday life, not simply something we do for a few hours a day before we grow up. And it will not be always confined to classrooms -- schools will be an institution, not a physical place. Nature offers us an amazing laboratory every time we step outside, and every bit as much in urban settings as in rural. This will be even more true in 2100, when our communities are designed to maximize exposure to healthy ecosystems. Education about civic responsibilities and roles will be heavily stressed, and will be taught by direct exposure to the decision making process or hands-on participation in activities that benefit the community. Youth will be schooled in civic responsibility by actively participating in the community. And what better place to learn skills required for economic production than at the workplace? Apprenticeships will be an integral part of the learning process. Technology will also play an important role in education. Virtual learning environments will be used where appropriate, but will by no means replace direct interaction.

Education and science will no longer focus solely on the reductionist approach, in which students are only taught to analyze problems by breaking them down into their component parts. While the reductionist approach and analysis will still play an important role in education, the real emphasis will be on synthesis, how to rebuild the analyzed components of a problem into a holistic picture again. Synthesis is critical for understanding system processes, and system processes dominate our lives. In natural systems individual trees create a forest and all the services that forest provides. In economic systems production is not simply the transformation of raw materials into products; production exhausts resources, creates pollution, and alternative production processes can make working life pure drudgery, or a chance to participate with others to meet society's needs and to express our own creativity. And social systems are certainly far more than an aggregation of autonomous individuals.

Beyond analysis and synthesis, learning will also emphasize communication. Researchers skilled at communication will be able to more readily share ideas, and ideas grow through sharing. Workers skilled at communication will be able to work together to solve production problems. Citizens skilled at communication will be able to contribute to the ever-evolving vision of a sustainable and desirable future that will be the motivating force behind policy and governance. Citizens will also be able to communicate their knowledge with each other, so that education, livelihood, family and community become a seamless whole of lifelong learning and teaching, everyone simultaneously a student and teacher.

Education will also emphasize much more than just pure scientific understanding of the material world. Critical thinking and research will be important, but so will creative expression and curiosity. Knowledge and science will not be portrayed as value neutral endeavors -- students will learn that the very decision of what to study is a moral choice with broad implications for society. The goal of education will be to cultivate wisdom and discernment, to cultivate the emotional maturity to allow responsible decision making in every type of human endeavor.

The whole notion of work will also change, and the word itself will lose the connotation of an unpleasant chore. People will recognize the absurdity of applying technology to the problem of producing more goods to be consumed during leisure time regardless of the drudgery involved in production itself. Instead, to recruit desired workers, industry will be forced to redirect some of its technological prowess towards making work itself a pleasurable part of our days that engages both mental and physical skills. A typical job will involve far more variety than one of today, not only to make work more exciting and interesting, but also to take advantage of the full range of a person's skills. There will also be less distinction between what today would be considered gainful employment and volunteer work. Everyone will participate in civil society, both in decision making and in maintaining the public space. This will not be an onerous chore, but a pleasurable time for socializing with neighbors and community. Nor will it take time away from our private lives, since the typical work week in traditional 'jobs' will average only fifteen hours.

Education will de-emphasize the existing 'more is better' mindset, and a greater understanding of the linkages between economic production, nature, human development and society will make people more aware of the true costs of excessive consumption. With 100 additional years of technological advance and diminished 'needs,' society will be able to provide a satisfactory living wage to all who work, and meet the basic needs of those who do not. Participation in the various types of work will be expected and supported, but not forced. As work will be more of a fulfilling experience than an onerous necessity, there will be little resentment of those who do not work, but rather a feeling of concern that these people are not developing their potential as humans. Living in more tightly knit communities where social goals are actively discussed, people will understand better the importance of their work, and feel greater obligation to contribute to the common good. Remuneration for work will be restructured to provide the greatest awards to those who provide the greatest amount of service to the community, such as teachers, child care providers, etc.

Human capital is also directly related to human populations. The population in America in 2100 will have stabilized at a level compatible with the carrying capacity of our resources and ecosystems.

V. Social Capital

Social capital refers to the institutions, relationships, and norms that shape the quality and quantity of a society's social interactions. Social capital is not just the sum of the institutions which underpin a society; it is the glue that holds them together.

Strong social capital plays a critical role in our vision of a Sustainable and Desirable America in 2100, as has been hinted at in the previous discussions of capital. In America in 2001, the dominant form of social capital in the employment and economic sphere is simply the market. The interaction between employer and employee is that of buying and selling labor. For the most part,
employer 'loyalty' exists only as long as the continued employment of the employee increases profits. Employee 'loyalty' exists only as long as no other job offers a greater salary or fringe benefits (which may include location, working conditions, etc.).

The interaction between producer and consumer is even more market based. People buy a product only as long as it is perceived to provide the greatest value in monetary terms, though admittedly advertising may play virtually as large a role in shaping perceptions as the actual price and quality of the product. In America in 2100, worker ownership of many industries and local production for local markets will change much of this. Worker owned enterprises will logically pay more attention to worker well-being than enterprises driven by the need to generate shareholder profit. Well-being will of course include profit-shares, but will be increased by working conditions that are healthy, stimulate creativity, and create feelings of participation and identity.

While not all enterprises will be worker owned, when a significant percentage of enterprises offer these conditions, it will put pressure on the others to do so as well. In the absence of strong social capital, local production for local markets could be a disaster.

In many cases, it might be inefficient to have a number of firms providing similar products for a small community. This could lead to monopoly provision of certain goods. If the market remained the dominant form of social capital driving interactions between producers and consumers, high profits and poor quality would result. However, if worker/owners also live in the local community, they will have to answer to their neighbors for both price and quality of what they produce. High quality production will be a source of pride, while low quality and high prices will be perceived as incompetence and laziness, decreasing the individual's social standing in the community, and reducing their social capital.

Local currencies will also contribute to locally based production and consumption. Such systems already exist in many communities, such as Ithaca, New York [see http://lightlink.com/hours/ithacahours/]. These currencies are backed only by trust that other members of the community will accept them in exchange for goods and services, and therefore require strong social capital to function. They also build social capital every time a community member accepts the currency. They are virtually immune to national and global economic instability, and provide communities with greater autonomy. [To be continued.]