

## Sustainability Requires an Economic Paradigm Shift

Faced with the litany of ecological limitations, many individuals and whole cultures retreat into simple denial. They tell us that there is no alternative but to continue in the current direction, assuming that the market and technology will solve the short-term problems, leaving the long-term problems to be solved by future generations. The trouble with this approach, as the last article in this series attempted to show, is that the future is now (not to mention, of course, that this attitude is not at all League-like!) So in the final two articles of this series we sample the proposals for alternative paths forward.

An economy is sustainable only if it complies with the principles of ecology. A sustainable economy must respect the capacity of the ecosystem on which it depends, both for material resources and for the recycling of waste materials. It must acknowledge that ecosystems provide not only goods but also indispensable services.

Ecological economists describe three objectives for an economic system: allocating resources among competing uses, distributing income among participants, and optimizing the scale of the economy relative to the ecosystem within which it is embedded. Allocation and distribution are familiar concepts from traditional economic theory. Markets do an excellent job of allocating resources within the constraints imposed by society regarding the distribution of income and more generally goals of economic activity. Without such constraints there are an infinite number of mathematically optimal solutions to the allocation problem, some of which lead to highly undesirable distributions of income. For this reason many governments, some economists, and organizations such as the League of Women Voters recognize the need for society to constrain the operations of markets.

Virtually no government and only a handful of economists and organizations have tackled the problem of scale. But it is the scale of the economy that is the main problem today. The economy is no longer small relative to the Earth, something that is implicitly assumed by all traditional economic theory. Indeed, the March 2005 global assessment report of the Millennium Ecosystem Assessment [www.millenniumassessment.org](http://www.millenniumassessment.org) estimates that almost two-thirds of the natural systems that support life on Earth are being degraded by human pressure. As Herman Daly as pointed out in **Beyond Growth** (1996, p. 13), “we must distinguish *growth* (quantitative increase by assimilation or accretion of materials) from *development* (qualitative improvement, realization of potential.)” The ecosystem has developed, not grown, into the marvelously complex web that supports life as we know it.

Creating a sustainable economy will require rapid change in both economic theory and practice. Forward-looking individuals, organizations and even governments are beginning to recognize opportunities for innovation, employment and investment.

The economy must be redesigned so that it produces little or no waste. While eco-efficiency, or doing more with less, is an admirable concept, it falls short of the fundamental change that is needed. After “the next industrial revolution” (the title of a very readable article that appeared in the October 1998 Atlantic Monthly, by William McDonough and Michael Braungart), industrial products will be designed so that, after serving the purpose for which they were created, they will provide nourishment for

something new. Biological materials, including all packaging, will return to the organic cycle to be consumed by microorganisms, fungi, and other decomposers. Durable goods such as computers and vehicles will be designed so that most of their components can be reused as is while others can be extracted and remanufactured. Customers will purchase the services of such products rather than the products themselves. An industrial park that attempts to put some of these ideas into practice has been constructed at Kalundborg, Denmark ([www.symbiosis.dk](http://www.symbiosis.dk)), where residual products are exchanged among a group of about 20 projects.

Energy use needs major overhaul on both the supply and demand sides. The ten-point plan of the Apollo Alliance [www.apolloalliance.org](http://www.apolloalliance.org) calls for major investment in existing technologies—more efficient and less polluting buildings, automobiles, and manufacturing, as well as smart urban growth and multimodal transportation. The Alliance claims that their proposal will add over 3 million good jobs to the American economy at the same time as it produces substantial energy savings and reduces carbon emissions. The World Energy Modernization Plan (WEMP) [new.heatisonline.org](http://new.heatisonline.org) makes similar claims for its plan to facilitate a rapid transition to climate-friendly modes of power generation worldwide.

A common theme among economic visionaries is the need to reverse the trend towards a single global economy. As the Irish economist Richard Douthwaite explains, globalization destroys the local environmental and economic signals that used to warn communities that their behavior was unsustainable, while rewarding those that consume the Earth's resources most rapidly ([www.feasta.org/documents/review2/douthwaite.pdf](http://www.feasta.org/documents/review2/douthwaite.pdf)). The sustainable economy will not be a single, uniform global system but a much more complex network of production and trading systems. Basic needs—food, fiber, shelter, energy—will be met within bioregions whenever possible. Only rare essential materials and products with a high technological content will be traded on larger scales. Distributed renewable electricity generation will supply most energy needs, together of course with major improvements in efficiency of use. Construction will be adapted to use local materials, rather than the current one-size-fits-all frame or steel construction, and buildings will require little or no energy-intensive climate control. Far more diversity will exist in transportation, both locally and interregionally.

The benefits of the required transition, in addition to enabling us to live within a thriving ecosystem, are many. The transition will require much innovation, opportunities that are already being exploited by the rest of the world while the U.S. lags behind. It will provide opportunities to invest constructively, rather than solely for speculative gain. And most important, it will increase local employment for those who are unable to find meaningful work in today's economy.

What does all this have to do with the League, which by and large is concerned with actions that can be legislated or executed by governments? In fact, government has essential roles to play, both in ceasing to promote harmful practices and systems through misguided subsidies and in encouraging more sustainable practices through taxes and market-guiding incentives. Markets must be regulated to preserve resources for future generations and to reduce the concentration of wealth. Producers must internalize ecological costs and pass them on to consumers so that market prices provide correct

signals to consumers. The League has an opportunity on all levels, from local to national, to make its voice heard as a proponent of a rapid transition to a sustainable economy.

Questions: Should the League strengthen the “maximum protection of the environment” clause in its national position to make it clear that this requirement may not be overruled by short-term economic considerations? Should the NM League reevaluate its position on taxation, promoting ecological tax reform, and augment this with strong positions against the use of tax money to subsidize economic development that does not take ecological constraints into account? Should the national League be supporting the expansion of international trade as a goal? Should LWVNM’s economic development position make a clear distinction between development and growth?