Greening the Economy and Recycling Economics

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Until recently, most corporations waited to begin cleaning up their products and processes until some citizen activist group or stockholder campaign forced them to do so. No one should be surprised at this corporate foot-dragging behavior. Traditional economic theory (which has changed remarkably little in the past twenty years) holds that corporate decisions should be narrowly focused on the balance sheet and on maximizing share prices and stockholders' returns. Corporate concern for broader social issues is still viewed in many textbooks as irrational or even immoral. As far back as the early 1970s, when environmental issues were just beginning to receive widespread attention, I and others pointed out that such short-term economic theorizing was shortchanging society and imposing significant environmental costs. These hidden costs of production were being passed on to consumers (for example, in ill health and cleaning bills), taxpayers (in the cost of trash collection), and future generations as these pollution problems worsened.

Today much has changed—environmentalists are now courted to serve on corporate boards and accept corporate grants. Yet traditional economic theories, investment analyses, and models of pricing and marketing still impose serious constraints on the abilities of managers to make environmentally wise decisions.

Traditional economics is destructive to the environment partly because of its obsessive focus on continually increasing the GDP. The kind of economic growth that both GDP and corporate balance sheets measure is distorted; it does not take into account the heavy social costs borne by local governments and taxpayers who have to clean up the mess. To deal with broken neighborhoods, crime, drugs, and pollution, they must raises taxes or incur budget deficits; they thus begin to compete with each other to ease pollution standards and zoning regulations to lure companies to their areas to provide jobs and tax revenues. But this only leads to even greater social and environmental costs—finally resulting in the politicians calling for more economic growth to "solve" the problems. The focus on money transactions and balance sheets causes unwise decisions and unrealistic assessments of the hidden costs of this type of "economic development."

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Faulty, obsolete economics led to the "bubble" economy in Japan and the United States during the economic growth of the 1980s. Now we can see the real-world hangover in both countries in failed financial institutions, overvalued stock markets and real estate; and the loss of faith of small investors and citizens as they see the systemic effects of greed and efforts to maximize profits and the bottom line. Narrow "economism" fails to see the potential of increased energy efficiency to make America more competitive with Japan and Europe. Underemployment, falling real incomes, the need for work-force retraining, and the rising indebtedness of consumers were overlooked and economists overestimate GDP—measured "recoveries" and expected job-creation. *The Economist* actually hails "jobless economic growth" as "the Holy Grail of economic prosperity." Such oxymorons flow from per-capita averaged statistics on GDP and productivity.

This same thinking has been behind the pursuit of a North American Free Trade Agreement (NAFTA) with Mexico, even though cheap Mexican labor will pull down the wages of U.S. workers—making it harder for them to support the U.S. GDP with adequate purchasing power. The "supply-side" paradigm sees the economy from a top-down business perspective that assumes that low wages and decreased spending on education and retraining is the best way to boost profit. But as systems thinkers know, what goes around comes around and taxes must support retraining of those disemployed by corporate substitution of workers through automation. We now see the industrial value system splitting in many mature industrial countries, including the United States, where short-term profit maximizing is giving way to older, more traditional community concerns, socially responsible investing, and the search for a "greener," gentler economy.

What Companies Are Doing to Respond

Many companies are responding to the challenges of "green" marketing, "greener" products, and more socially responsible ways of doing business. The best indicator is the overall growth of the socially responsible investment movement, up from $40 billion in assets in 1982 to $750 billion in 1992, with this type of "clean and green" investing growing faster than any other market segment. In addition, some of the socially responsible funds outperform the market, even though they exclude companies that pollute, produce weapons or nuclear energy, and firms that are unfair to workers, test their products on animals, or do business with repressive foreign regimes.

For many years, environmentalists exerted pressure on electric utilities to get them to clean up, to increase efficiency, and to help their customers purchase less wasteful appliances, light bulbs, and shower heads and insulate their homes. Today, utilities that once resisted that pressure are jumping on the environmental bandwagon and realizing that it is cheaper for them to even *give* their customers efficient light bulbs and shower heads and offer them low-interest loans to install insulation than it is to build new power plants. Conservation is at last recognized as many times more cost-effective than adding new power supply.

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Energy use is the key to environmental quality, and when all the social and environmental costs are included in the price of energy, we find that the environmental solution is also the economic solution. More and more countries are seeing that energy-efficient, environmentally sound economies are necessary for truly sustainable development in the long term. In the private sector, especially in global companies, the twin lessons of energy efficiency and preventing pollution at the source are being learned. These goals can be achieved only when prices are corrected to reflect their full cost and investments are costed out over their full useful life, so that the most ecologically benign technologies win out.

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Cutting-edge companies are moving beyond recycling into remanufacturing and reuse. Some companies are getting into environmental enhancement rather than just pollution control. "Greening" can be good business. A recent survey of the 1,000 largest industrial companies by Covenant Investment Management of Chicago found that the "top 200" in social responsibility had outperformed Standard and Poor's 500 in total five-year returns by almost 15 percent. Many consulting companies and advertising agencies are now offering the big multinationals "green" ideas for marketing and promotion, and several hundred firms in the United States and Europe now offer environmental auditing services. Unless the private sector gets deeply involved, the shift to environmentally sustainable technologies and companies will be slow indeed.

Many environmentalists have understandable misgivings about big multinational corporations and large-scale environmental projects. Indeed, such projects must be assessed very carefully, to determine their effects on local people, cultures, and ecosystems. Thus, bioremediation and ecological restoration are new industries of the twenty-first century. At a recent meeting of the Society for Ecological Restoration, the "trade association" for the new ecological remediation business, thousands of participants discussed projects such as restoring rain forests and recreating lost wetlands, freeing rivers whose flows had been channeled, greening desert areas, replanting wasteland around power facilities, and reintroducing lost species into their former habitats.

Making "Greening" Fair

The "Economists versus Ecologists" debate has changed little since my *Harvard Business Review* article in 1973. The struggle concerns whether economic management tools such as the GDP will continue to reign supreme over the affairs of nations, or broader social and ecological values will move the policies of business and government beyond the traditional "bottom line." There are economic mechanisms to internalize hidden social and environmental costs and expand the limits of market-based policies in dealing with long-term values. But economic approaches are not a panacea and the new markets must, in fact, be legislated into existence. Another apparent oxymoron reveals the truth that all markets are sets of rules derived from different cultural DNA codes. "Green" markets, like all others, will not be "free" or even cheap, since they require complex regulation, monitoring, and enforcement and may be ethically dubious, such as the new markets now trading air pollution licenses.

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Furthermore, these measures will not necessarily be fair. Traditional economic theory based on Pareto Optimality formulas ignores the growing gap between rich and poor and assumes that everybody has equal power and information. As a consequence, most economists tend to favor "incentives" and subsidies to ease the pain of restructuring wasteful *old* industries rather than backing a "greening" of tax law to level the playing field for *new* and budding enterprises in energy conservation and efficiency, recycling, and renewable resources. Although many "green" markets will be more efficient overall, they will produce winners and losers (often workers or low-income citizens).

Since Earth Day 1970, environmentalists have challenged economists' definitions of progress, wealth, and development, pointing out that traditional economic theories and models shortchange nature as well as future generations. They highlight absurdities of GDP accounting such as posting gains after the *Exxon Valdez* oil spill in Alaska by adding the costs of the cleanup to GDP. GDP ignores the value of clean water, fish, and pristine, scenic environments such as Prince William Sound.

The social equity issues glossed over in economic theories were challenged in Rio at the 1992 Earth Summit in a North-South debate over "sustainable development," a term now widely co-opted by governments and business. Sustainable development, if it is not to become another oxymoron will require that northern industrial countries consume less energy and materials if the countries of the south are to achieve sufficient levels of development to meet their needs.

The new realism is expressed in *Challenge to the South*, the final report (1990) of the three-year deliberations of the South Commission—a prominent group of dignitaries from the Southern Hemisphere. The report clearly accepts a new level of responsibility for the South's own development and self-reliance in fostering its own human resources and still unexploited natural wealth. It takes a sober look at the outworn debates between capitalism and socialism and, while acknowledging the need in many countries to replace government bureaucracy with more use of markets, also recognizes that most economies in the world are regulated and that some government intervention is necessary. *Challenge to the South* acknowledges the failure of the much-awaited North-South dialogue and emphasizes that the only option left for the South is more concerted action on its own behalf in matters such as trade, finance, debt, the environment, and new paths toward its own specific forms of development. It sees blind imitation of wasteful Western-style mass consumption patterns and slavish following of prescriptions for boosting GDP as counterproductive and advocates new indicators of a more balanced kind of development. These include literacy rates, life expectancy, unpaid productive work, energy efficiency, military versus civilian budget ratios and environmental depletion, such as the UN's Human Development Index (HDI) and my own Country Futures Indicators (C.F.I.).

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The transition to sustainable, renewable energy will cause initial disruption and job losses, which also must be cushioned by grants and retraining. Balanced, solar-based economies will be more labor intensive, as spelled out in my earlier books (see Chapter Nine of *Politics of the Solar Age*, and Worldwatch Institute paper #104, "Jobs in a Sustainable Economy," September 1991).

Other groundbreaking recommendations include the forming of a debtors' forum to guide concerted policies for relief of debts; a new South Bank to make export credits and investments more available to expand inter-South trade and technological development; augmented data networks for information sharing; and many programs for increasing investments in human resources and education.

The paradigm of "productivity per capita" has led inevitably to increasing the capital intensity of industrial societies and to the drive for technological innovation and automation. The debates of the 1970s over "appropriate technology, scale, and centralization" have shifted the development paradigm in the 1990s, particularly in the South. Technological choices are more critically examined to determine whether they will disemploy people, widen income disparities, draw populations from rural food production into already burgeoning cities, or have detrimental environmental impacts.

Challenge to the South adopts many of the suggestions of the Brundtland Commission report, for a more ecologically sustainable, and equitable form of development, although it is understandably hardnosed concerning global bargaining over issues such as global warming and ozone depletion. It calls for a Planetary Ecological Fund so that the costs of shifting to more benign, "green" technologies will be borne fairly by the North—which is responsible for 80 percent of these problems—as well as the South. Indeed, *Challenge to the South* is a major policy statement that may well redefine what we mean by development.

People-Centered Development

It is now clear how misguided has been the effort to industrialize the planet by the process by which Britain and much of Europe industrialized almost three centuries ago. The Eurocentric ideologies of industrialism and economic "development" not only were derived from one-time historical processes but also were deeply culturally embedded—not to mention their being based on inadequate scientific understanding of the earth's ecosystems. It has taken the rest of the world over a hundred years of attempts to imitate this process, supported by the proselytizing of generations of well-meaning economists, to realize that the theory of economics that has rationalized the European industrialization experience is not adaptable to other cultures and ecosystems.

The so-called UN Third Development Decade at last revealed that in Europe, this "progress" was won at the expense of colonial exploitation, stripping agricultural assets and peasants of their rights to farm the "commons." Furthermore, the earth's population was not yet then stressing ecosystems, and we are only now beginning to calculate the "pollution indebtedness" of these early industrial "winners." The northern industrial countries that have created most of the world's pollution still talk of the "indebted" countries of the developing world. Calculations of the social and environmental costs (clearly in the trillions of dollars) that the world has paid for this industrial development make it clear that it is the industrialized countries that are most in deficit and furthest in arrears! It now remains for countries of the Southern Hemisphere to negotiate their money debt on this basis.

Sustainable Development—Filipino Style

The most highly articulated plan for the new, people-centered ecological paradigm of development is the Economic White Paper presented by Green Forum-Philippines, one of the most cogent critiques of the conventional economic development paradigm. The Green Forum model is based on scientific understanding of how ecosystems function to support human activities and is aimed at meeting real human needs, not only for income but for health, education, nutritious food, adequate housing, meaningful cultural and spiritual lives, and sharing the fruits of labor in equitable, cohesive communities. The paper documents with careful research how the whole GDP-oriented "development" process has devastated the Philippines and how, tied as it is to the inequitable workings of world trade and the current financial system, it continues to marginalize ever more rural Filipinos while destroying the productivity of their land, water, and forests.

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The Green Forum model is a carefully researched, *tested* plan to reverse this decline, reinvest in rural communities, raise agricultural productivity, and reduce the rampant poverty that is now tearing the country apart. The plan is eminently practical, even *unremarkable*, but it is this kind of tested, hands-on common sense that eludes economists and "development" officers with their computerized macroeconomic models. It doesn't fit the formulas, and it can't be evaluated by their quantitative yardsticks.

Not that this new plan isn't quantitatively measured or computerized—it is. But it starts from the ground up, and with different *assumptions*: that households, rather than corporate enterprises, are the basic units of production and that villages composed of these productive households can be viewed as enterprises in a system of community-centered capitalism, rather than analogues to the familiar worker-ownership model. The principle of "subsidiarity," that problems should be solved at the lowest possible level of governance, underlies the plan. Indicators of performance will provide feedback to producers at all levels from households to villages to the larger communities, which will act as processing and marketing centers. Most importantly, each community enterprise area will be nested within an ecological zone with unique ecological features, natural resources, biodiversity, rates of sustainable yields, and so on.

Thus, the main parameters of development will be sustainability within ecological tolerances and household-based "trickle-up" features, founded on local equity and replacing the discredited top-down approach. Somewhat similar approaches have been successful in the Sarvodya Shramadana movement in Sri Lanka.

The time seems ripe for Green Forum's bold new plan, although it will depend on the foresight of the Philippine government and on the determination to finally deliver on promises of land reform. It is already backed by a broad grass-roots coalition motivated by the vision of equitable, homegrown, people-centered, ecologically sustainable development.

Changing the Incentives

Long-term programs to enable industrialized countries to shift their economies to a resource and energy-efficient, sustainable base must be set in motion now. Lack of leadership in presenting all the options and resistance from large, rigid industrial sectors are still deterring the transition from polluting economies based on fossil fuels to the dawning solar age of economic and environmental sustainability. Although this transition will not be painless or cost-free, it can be accomplished through measures such as the following:

- "Greening" tax codes—levying charges on pollution, waste, planned obsolescence, and resource depletion, such as a BTU (British Thermal Unit) tax on energy or a carbon tax to prevent buildup of carbon dioxide in the atmosphere and global warming.
- Increasing energy efficiency standards for appliances and cars.
- Restoring tax credits and government programs to encourage investments in alternative, renewable-energy technologies and eliminating subsidies that favor nonrenewable energy such as oil depletion allowances.
- Enact *employment* tax credits to reduce tax burden on domestic job creation.
- Encouraging subsidizing, and, where necessary, mandating recycling programs.
- Strengthening pressure for a genuine national energy policy. Entrenched energy interests are still blocking the development of wind, solar, biomass, hydrogen, and tidal energy production. Germany, Italy, and Japan already outspend the United States on photovoltaics, wind, and other renewable energy; during the 1980s, the U.S. share in the world

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wind energy market dropped from 27 percent to 5 percent.

- Encouraging widespread debate and non-partisan, scientific public opinion surveys, spelling out all major policy issues and options.

While not much progress has been made in the United States, pollution levies, or "green taxes," are approved by most European governments and businesses. Currently eighty-five kinds of "green" fees include deposits on returnables, depletion taxes, and levies on such pollutants as carbon and sulfur dioxide, according to the Paris-based Organization for Economic Cooperation and Development (OECD), following its Polluter Pays Principle promulgated in the early 1970s.

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Governments in Europe see "green" fees as a major source of new revenue, while business executives see them as much more palatable than bureaucracy and regulation. Most economists approve of "green" levies, since they not only help pay the costs of pollution but also provide correct price signals and improve markets' functioning. While markets cannot achieve the whole job, they can be effective—if fees for polluters are set high enough.

The idea of replacing some taxes with pollution levies to make the economy more efficient is promoted by World Business Academy trustee Eckart Wintzen. Greening our tax codes would also help correct national accounts. Rather than the costs of cleaning up pollution and repairing damage being added to GDP, as is done in the United States, these costs should be subtracted from GDP as they are in Japan—and the bills should go to the polluters. If prices of polluting products included the costs of disposal and recycling, cleaner, recyclable products would be able to compete more fairly. Many of these products are offered by small, fast-growing companies that don't have the market power to "fix" prices. Surveys show that the great majority of citizens are willing to buy environmentally friendly products, even at higher costs (*Business Week* estimated the "green market" in the United States will grow from $56 billion in 1990 to $174 billion by 1995, creating new jobs). In Germany taxes on personal income are reduced proportionately as "green" fees are raised. This shifts the financial burden from low-income individuals to activities that pollute and deplete the earth, while the tax policy remains revenue neutral overall.

Many companies that pollute see the handwriting on the wall. Consumers and employees of such companies are bringing lawsuits for damages, and companies are being found liable for a wide range of new claims. The U.S. departments of Defense and Energy will spend $400 billion on pollution clean-ups. Furthermore, the new Clinton-Gore administration understands that the economy cannot compete as long as it is so wasteful and continues using two and a half times as much energy per unit of production as the Japanese, and West Europeans.

The Changing Trade Paradigm

The classical economic paradigm builds on the concept of "comparative advantage": all other things being equal, free trade with as few barriers as possible, with each country specializing where it does best, would result in all countries being better off. This was a perfectly sensible idea in the 1800s, when European countries were beginning to trade with each other and capital was as immobile as labor and resources. But these conditions have vanished. Under the global financial system of the 1990s, capital is so mobile that trillions of dollars move around the electronic banking and trading systems every day. These huge financial flows dwarf trade flows between countries. At the same time, a significant portion of trade flows between countries are between divisions, joint ventures, and subsidiaries of multinational corporations (up to two-fifths of U. S. trade flows are between parts of U.S.-based multinationals). Add to that the fact that economic theory encourages all countries to expand their economies by exploiting their "comparative advantages"—whether of cheap labor, cheap land, or unregulated environmental resources—and we have today's resistance to both NAFTA and GATT.

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In a system of global export competition, there are always losers—countries whose balance of payments worsen so that to continue playing the game, they must keep devaluing their currencies or lowering their wages and allowing their natural resources to be raped. Extreme differentials in wages between countries as well as different regulatory regimes cause many short-term corporate relocation decisions that lead to excessive restructuring and disruption—often abetted by tax codes that reward them with write-offs and force localities to bid against each other with unrealistic concessions. The "world trade" paradigm has to be re-thought.

Politicians are urged by their economic advisers to espouse free trade; yet they are of necessity "closet protectionists." Until some rational new rules are promulgated for leveling the global playing field, they must try to conserve what little domestic "sovereignty" remains to run their economies, as Europe closed ranks around its farmers. Meanwhile, workers have begun to move—mass migrations of people are seeking higher wages in other countries. The exploitation of the environment continues in rich and poor countries to gain "comparative advantage" for exports. Free trade economists see environmental protection rules as "protectionist" barriers that can unfairly hamper trade. Yet the corollary of such free trade purism is that labor should be as mobile as capital. Thus all immigration restrictions, work rules, even wage differences can be equally branded "protectionist."

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I do *not* suggest going back to anarchy and protectionism—impossible in any case in our interdependent world. In fact, "free trade" could help change the rules in favor of better worldwide standards for environmental protection and consumer and worker safety, if trade agreements were to incorporate such social costs and environmental values in its calculations and ratify new indicators of development.

If all countries' social policies can be targeted as "protectionist," then all trade debates are likely to become rife with intractable conflicts or to incur even broader social costs. Environmentalists, often in coalition with workers and poor people, are helping economists realize that trying to level playing fields for trade by homogenizing all cultures and life-styles or by leveling ecosystems and exploiting land in the name of "global efficiency" will lead in the wrong direction. Instead, all countries need to work toward leveling the global playing field upward, by raising its ethical floor. This entails continuing work on agreements toward a latticework of standards and protocols on consumer protection, worker safety, and environmental conservation and reducing the disparity in wages and living standards. Unless trade gaps are narrowed in this future-conserving way, old GDP-scored competition will continue rewarding the most exploitative companies and shortsighted countries.

"Greening the global economy" will require policy interventions at these five levels in the following ways:

- *Individuals.* The "greening" of the economy will require that individuals change their consumption, investments, and voting habits. They must acquire fewer and more environmentally sound goods; meet more of their transportation needs through mass transit, bikes, or smaller alternatively powered cars; and recycle and reduce waste. They should switch their investments to local banks and credit unions that invest in local enterprises and to socially and environmentally responsible investment vehicles. And they should educate and organize themselves to reform government and vote at all levels.

- *Local governments.* New ordinances must be enacted allowing multiple-use zoning to reknit communities and reduce travel, and subsidies for garbage hauling should be abolished so the full costs are levied on local residents, thus encouraging recycling. Energy efficiency must be built into local construction codes, and water and other utilities such as highway use should be priced at full cost.
- *Private sector.* Businesses of all sizes can redesign their products and operations to minimize energy and materials use and eliminate inherently polluting and wasteful products and overpackaging. Internal environmental audits can assess a company's vulnerability to lawsuits, new regulations, citizen actions, and low consumer ratings. Marketing, and public relations can reposition the redesigned product lines to take advantage of "green markets." Research and development programs should focus on long-term opportunities to innovate new "green" technologies.

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- *National governments.* New scorecards of progress are needed to correct the errors of "GDP thinking." National budget priorities need to shift toward increasing incentives and R&D funds for energy efficiency and building a renewable, resource-based society. Transportation policy should favor public transit, and eliminate the current enormous subsidies to the auto and highway systems; energy policy should shift from fossil fuel and nuclear to solar and renewables. Tax codes should penalize depletion of virgin resources, waste, planned obsolescence, and pollution.
- *International level.* Leveling the global playing field by raising its ethical floor requires rigorous leadership in forging new agreements and protocols governing the global financial

and trade system. This system itself has now become a crucial global "commons."

Most urgently needed are new agreements on financial systems and trade. What is needed is nothing less than a "New Bretton Woods" conference. Ad hoc G-7 meetings and other such piecemeal approaches are stopgap measures at best. GATT was a compromise to satisfy American objections to the proposed International Trade Organization, in which all countries would participate. Thus GATT is widely viewed as unfair to developing countries, favoring the interests of the North and multinational corporations. The World Bank and the International Monetary Fund are similarly biased. The G-7 needs to give way to a World Economic Council in which all countries can participate to establish new global protocols on environmental sustainability, consumer and worker protection, currency regimes, and new reserve currencies.

Paradigms in Progress *is available from Knowledge Systems, Inc., 7777 West Morris Street, Indianapolis, IN 46231, for $16.95 plus shipping and handling. To order call 1-800-999-8517.*

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