Pursuing Sustainable Communities: Looking Back, Looking Forward

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I. Introduction

IN 1992, AT THE UNITED NATIONS CONFERENCE on Environment and Development in Rio de Janeiro ("Rio Summit"), the United States and other countries agreed to achieve sustainable development within their borders and to cooperate with other countries to reach this goal. They agreed to two nonbinding documents: an ambitious plan for sustainable development called Agenda 21,[1] and a set of twenty-seven principles known as the Rio Declaration to guide implementation of that plan.[2] The basic decision-making principle of sustainable development is the integration of environmental protection with conventional development.[3] Instead of conventional development at the environment's expense, or environmental protection instead of development, the idea is to achieve both development and environmental protection at the same time.[4] Conventional development embraces more than economic development; it also includes improvements in social well-being, peace,

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1. United Nations Conference on Environment and Development, *Agenda 21*, U.N. Doc. A/CONF.151/26 (1992), *available at* http://www.un.org/esa/sustdev/agenda21/index.htm.

2. United Nations Conference on Environment and Development, *Rio Declaration on Environment and Development,* U.N. Doc. A/CONF.151/5/Rev.1, 31 I.L.M. 874 (1992), *available at* http://www.un.org/documents/ga/conf151/aconf15126–1annex1.htm.

3. *See* John C. Dernbach, *Achieving Sustainable Development: The Centrality and Multiple Facets of Integrated Decisionmaking,* 10 IND. J. GLOBAL LEGAL STUD. 247 (2003).

4. WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT, OUR COMMON FUTURE 37 (1987) ("Environment and development are not separate challenges; they are inexorably linked. Development cannot subsist upon a deteriorating environmental re-

and security.[5] The principle objectives of sustainable development are quality of life, freedom, and opportunity,[6] for both present and future generations. The famous Brundtland Commission definition of sustainable development, "development that meets the needs of the present without compromising the ability of future generations to meet their own needs,"[7] indicates that future generations should not be burdened by today's shortsightedness.[8]

Ten years later in 2002, at the World Summit on Sustainable Development in Johannesburg ("Johannesburg Summit"), countries reaffirmed their commitment to Agenda 21 and the Rio Declaration, reviewed progress toward sustainable development over the past decade, and agreed on a plan for making more progress.[9] In conjunction with the Johannesburg Summit, the Environmental Law Institute published a thirty-two chapter assessment of United States sustainable development efforts over the past decade entitled *Stumbling Toward Sustainability*.[10] The book, which brought together forty-two contributors from colleges

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source base; the environment cannot be protected when growth leaves out of account the costs of environmental destruction.").

5. John C. Dernbach, *Sustainable Development as a Framework for National Governance,* 49 CASE W. RES. L. REV. 1, 9–14 (1998).

6. *See, e.g.*, *Rio Declaration, supra* note 2, at Princ. 1 ("Human beings are at the center of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature."); AMARTYA SEN, DEVELOPMENT AS FREEDOM 36 (1999) (describing freedom as both "the primary end" and "the principle means of development") (emphasis deleted); President's Council on Sustainable Development, *Sustainable America: A New Consensus for Prosperity, Opportunity, and a Healthy Environment for the Future* (1996) [hereinafter *Sustainable America*], *available at* http://clinton4.nara.gov/PCSD/Publications/TF_Reports/amer-top.html.

7. WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT, OUR COMMON FUTURE 43 (1987).

8. Sustainable development also encompasses the concept of economic supportability, and a core belief that a fairer distribution of wealth, including economic and not just environmental assets, is likely to be more politically supportable over the long-term and is morally necessary. The Illinois Supreme Court decided a case that supported the right of municipalities to charge development impact fees to cover the increased fixed costs of new infrastructure hookups. The majority opinion actually stated (this was in the 1970s) that this right was a matter of intergenerational equity; today's taxpayers in the existing part of a community were being asked to front funds to investment in tomorrow's residents' well being in another part of the community. Krughoff v. City of Naperville, 369 N.E.2d 892 (Ill. 1977).

9. *Plan of Implementation of the World Summit on Sustainable Development, in Report of World Summit on Sustainable Development,* U.N. Doc. A/CONF.199/20 (2002), *available at* http://www.johannesburgsummit.org/html/documents/summit_docs/131302_wssd_report_reissued.pdf [hereinafter Plan of Implementation].

10. STUMBLING TOWARD SUSTAINABILITY (John C. Dernbach ed., 2002); *See also* UNITED STATES: COUNTRY PROFILE (2002), *available at* http://www.un.org/esa/agenda21/natlinfo/wssd/usa.pdf (last viewed Jan. 16, 2003) (description of U.S. activities that are consistent with Agenda 21). Unlike STUMBLING TOWARD SUSTAINABILITY, the country profile contains virtually no evaluation of U.S. efforts and virtually no recommendations.

and universities, law schools, nongovernmental organizations, state government, the private sector, and a national laboratory, also includes recommendations for the next five to ten years. While relatively little progress has been made toward sustainability in the United States since 1992, much of that progress involved sustainable communities.[11]

Using many of the findings and recommendations in *Stumbling Toward Sustainability,* and the experience of one of the authors as an active member of the President's Council on Sustainable Development, this article explains what sustainable development would mean for cities and other communities in the United States. Part II summarizes what the Rio agreements say about sustainable communities. Part III provides an overview of progress toward sustainable communities in the United States over the past decade. Part IV outlines recommendations for sustainable communities for the next decade. Readers interested in pursuing sustainability in their own communities will find in the appendix a short annotated bibliography containing many of the most useful and practical Web sites. These on-line materials collect and provide links to a substantial body of experience and ideas, as well as funding opportunities.

II. Sustainable Communities

According to a 1997 task force of the President's Council on Sustainable Development (PCSD), sustainable communities are "cities and towns that prosper because people work together to produce a high quality of life that they want to sustain and constantly improve. They are communities that flourish because they build a mutually supportive, dynamic balance between social well-being, economic opportunity, and environmental quality."[12]

Agenda 21 and the Rio Declaration provide the basic framework for understanding sustainable communities. Agenda 21 defines the overall objective as improved "social, economic and environmental quality of human settlements and the living and working environments of all people, in particular the urban and rural poor."[13] Adequate housing for all, sustainable land use, sustainable management of urban settlements, sustainable energy and transportation systems, adequate environmental in-

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11. John C. Dernbach, *Synthesis in* STUMBLING TOWARD SUSTAINABILITY, *supra* note 10, at 1–2.

12. SUSTAINABLE COMMUNITIES TASK FORCE, PRESIDENT'S COUNCIL ON SUSTAINABLE DEVELOPMENT, SUSTAINABLE COMMUNITIES TASK FORCE REPORT 2 (1997), *available at* http://clinton4.nara.gov/PCSD/Publications/suscomm/ind_suscom.html.

13. *Agenda 21, supra* note 1, ¶ 7.4.

frastructure (that is, water, sewage treatment, and solid waste disposal), sustainable building construction, and improved human resource development are among the key things needed to reach that objective.[14] This overall objective aims to protect not only present generations, but also future ones.[15]

For communities, the Rio agreements suggest a broad objective and certain key procedures. Although not legally binding, the provisions provide a coherent and even compelling framework for improving quality of life in communities.[16] As these agreements recognize, communities need to work out the particulars in light of their own circumstances.

Sustainable communities require consideration of the environment throughout the decision-making process. The connections between the environment and development are often abstractions at the national and international levels; nevertheless, they are perhaps no more clear than in the communities where we live, work, and play. The environment is more than background scenery; it has a profound effect on regional economic and social development.[17] Pittsburgh, for example, has sought to use its location at the confluence of two rivers and environmental amenities to "grow and attract new technology-based companies and high-performance manufacturers."[18] The environment also influences how members of the community see themselves, and their decision to stay in that community.[19]

A powerful insight underlying integrated decision-making holds that we experience life, not just in economic, social, environmental, or security terms, but also in terms of them all. From moment-to-moment, year-to-year, and place-to-place, the quality of our lives is based on a

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14. *Id.* ¶ 7.5.

15. *Rio Declaration, supra* note 2, at Princ. 3.

16. In that respect, Agenda 21, the Rio Declaration, and similar documents are like nonbinding precedent. They also provide a more specific understanding of sustainable development than one-sentence definitions. Sustainable development provides a powerful and attractive (if not fully articulated) set of practical intellectual tools to address difficult problems.

17. *See, e.g.,* John W. Ragsdale, Jr., *Alternative Communities for the High Plains: An Exploratory Essay on Holistic Responses to Issues of Environment, Economy, and Society,* 34 URB. LAW. 73 (2002) (describing economic and social opportunities and limitations provided by environment in the High Plains).

18. Franklin Tugwell et al., *The Challenge of the Environmental City: A Pittsburgh Case Study, in* TOWARD SUSTAINABLE COMMUNITIES: TRANSITION AND TRANSFORMATIONS IN ENVIRONMENTAL POLICY 187, 188 (Daniel A. Mazmanian and Michael E. Kraft eds., 1999).

19. *See* THOMAS MICHAEL POWER, LOST LANDSCAPES AND FAILED ECONOMIES: A SEARCH FOR THE VALUE OF PLACE 238 (1996) (arguing that "[c]ommitment to place is important to local economic development," and that "a desirable natural landscape" is one quality that helps instill that commitment).

blend of these categories. The environment, in particular, is not a discrete thing we can separate from everything else we care about. Pollution hurts the environment, but it also hurts our health. Parks provide green space, but they also increase surrounding property values. Rivers and harbors may be good for fishing, but they often provide a means of moving persons and freight, and are an attractive setting for homes and businesses.

Two other aspects of integrated decision-making are also important to communities. In many ways, local governments are at the bottom of a hierarchy in which the federal government is on top and state government is in the middle. Because many federal and state decisions affect the quality of life at the local level, progress toward sustainable communities requires that federal, state, and local decisions be consistent and mutually reinforcing.[20] These decisions should support sustainable development, not stifle it. This kind of integrated decision-making represents vertical integration.

In addition, many local governments in a region exist in the same watershed, use the same water supplies, or affect each other's land use policies. More often than not, municipal boundaries have little or no relationship to natural capital (for example, to watersheds) whose boundaries transcend these legal fictions. Very little that actually matters to an economy is actually governed or influenced within a single municipal or even state jurisdiction; runoff from rain or melting snow does not respect these invisible boundaries, and commerce is not so limited.[21] This is particularly true in metropolitan areas. If local governments are to address these and other problems in an effective manner, their decisions must also be consistent and mutually reinforcing. These decisions, of course, should also support sustainable development. Because local governments are all more or less on the same level, this kind of integrated decision-making can be described as horizontal integration.

Therefore, integrated decision-making occurs when a municipality integrates environmental considerations and goals into its decision-making processes for development. Yet the municipality cannot act alone. Its decisions and those of state and federal actors need to be

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20. Robert R.M. Verchick, *Why the Global Environment Needs Local Government: Lessons from the Johannesburg Summit,* 35 URB. LAW. 471 (2003).

21. Scott Bernstein, *Using the Hidden Assets of America's Communities and Regions to Ensure Sustainable Communities, available at* http://www.cnt.org/hidden-assets.

consistently supportive of sustainability, and its decisions and those of other municipalities in the region need to be consistently supportive of sustainability.

Communities should identify priorities and goals through a local strategy for sustainable development. While national actions and a national strategy are essential for sustainable development,[22] sustainable development is not to be achieved simply by a top-down effort. Agenda 21 states that countries should delegate "planning and management responsibilities to the lowest level of public authority consistent with effective action."[23] Agenda 21 also states that most local authorities in each country should have developed a "local Agenda 21" by 1996, using a consultative process with key stakeholders.[24] A worldwide effort to adopt "local Agenda 21s" since the Rio Summit has led more than 6,400 local authorities in 113 countries to undertake or agree to undertake such efforts.[25]

Public access to information, public participation in governmental decision-making, and access to justice are essential to sustainable development at the community level.[26] In a democracy, public access and participation are important in their own right, but they also help ensure that environmental and social perspectives are brought into decision-making processes that may be dominated by economic objectives (or vice versa). Public access and participation can also lead to better and more credible decisions. Thus, sustainable community planning or strategic processes should be based on broad public participation.[27]

Making progress toward sustainable communities is not the same thing as achieving sustainability. Much of the confusion about sustain-

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22. In Agenda 21 and subsequent agreements, each country agreed to adopt and carry out a national strategy for sustainable development. *Agenda 21*, *supra* note 1, ¶¶ 8.6(d), 8.7 (countries should adopt national strategies or sustainable development); *Programme for the Further Implementation of Agenda 21,* U.N. GAOR, 19th Special Sess., Agenda Item 8, ¶ 24(a), U.N. Doc. A/S-19/29 (1997) (countries should complete formulation and elaboration of national strategies by 2002). Under the Johannesburg Plan of Implementation, agreed to in 2002, the United States and other countries are to be implementing their strategies by 2005. Plan of Implementation, *supra* note 9, ¶ 162(b).

23. Agenda 21, *supra* note 1, ¶¶ 8.5(g), 28.3 (specifically urging each local authority to adopt a "local Agenda 21"); *Programme for the Further Implementation of Agenda 21, supra* note 22, ¶ 24(a) (encouraging "[l]ocal Agenda 21s and other local sustainable development . . . programs").

24. Agenda 21, *supra* note 1, ¶ 28.2(a).

25. U.N. Department of Economic and Social Affairs, *Second Local Agenda 21 Survey,* U.N. Doc. DESA/DSD/PC2/BP15 (2002), *available at* http://www.iclei.org/rioplusten/final_documents.pdf (submitted by the International Council for Local Environmental Initiatives).

26. *Rio Declaration, supra* note 2, at Princ. 10.

27. *See, e.g., Agenda 21*, *supra* note 1, ¶¶ 7.4, 28.3.

able development occurs when people equate the journey with the destination. The destination itself appears to be a long distance away; achieving a transition to sustainability could take until 2050.[28] Communities will arrive at the destination when their social and economic activity protects and restores the environment rather than degrades it, and when large-scale poverty no longer exists.[29] Thus, sustainable communities would exist when development and environmental protection are mutually reinforcing rather than antagonistic. The path toward such sustainable communities requires the continued reduction of adverse environmental impacts and poverty. Each step on that path is important, but it should be described in terms of progress toward sustainability, not as sustainability itself.

Good governance is essential to making progress toward, and achieving, sustainable communities. Governments at all levels make and carry out the basic rules under which people and businesses in communities make decisions, and can create legal structures that either foster or impede sustainable development. Governments, of course, cannot do all the work; all sectors of a community have a role to play.

Achieving sustainable communities is essential to achieving overall sustainable development. "Think globally, act locally" is more than a clever slogan. Sustainable development means nothing if it does not mean sustainability in communities. Likewise, a transition to sustainability in most cities and other communities would mean a transition toward sustainability in general. Consequently, we can effect global changes by what we do in our own communities.

III. Looking Back: An Overview of Progress Between 1992 and 2002

There has been a lot of talk about sustainable communities over the past decade, but little action. In the past ten years, no level of government in the United States has provided strong support for sustainable development, much less sustainable communities. State and local efforts, however, have shown more progress than national ones. More often, sustainable community efforts are seen in specific issues such as

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28. BOARD ON SUSTAINABLE DEVELOPMENT POLICY DIVISION, NATIONAL RESEARCH COUNCIL, OUR COMMON JOURNEY: A TRANSITION TOWARD SUSTAINABILITY 3 (1999).

29. John C. Dernbach, *Sustainable Development: Now More Than Ever, in* STUMBLING TOWARD SUSTAINABILITY, *supra* note 10, at 45. Sustainable development is directed at these two problems, and thus a sustainable society would exist when these problems are successfully addressed. Of course, these are only two key characteristics of sustainable communities. *Id.* at 47–48.

brownfields redevelopment; public access to information, participation, and justice; land use; transportation; housing; public health services; and education. Despite progress on some of these issues, there is a long way to go.

A. *Governance*

Local Governance. Although little was done to address fragmented decision-making in the past decade, a significant minority of municipalities began or continued strategic processes to achieve sustainability. Perhaps the most basic problem for sustainable development at the local level is caused by fragmented decision-making among municipalities in the same region. This fragmentation causes "sprawling growth patterns that increase traffic, air and water pollution, water consumption, and destroy wetlands."[30] In addition to environmental effects, this fragmentation also has social effects. "Communities and regions across the United States also continue to be largely divided along economic and racial lines, both physically and socially."[31] The lack of laws requiring coordination in housing, education, regional revenue sharing, and land use remains a major obstacle to local sustainable development efforts.[32]

Fragmentation of local decision-making authority is widely perceived as the basic problem, but that appears to be an oversimplification. In 1997, touring the country under the banner of "The Metropolitan Initiative," national and regional foundations sponsored meetings with 1,000 business, elected, and community leaders from twelve metropolitan regions. At a subsequent summary meeting held at the Brookings Institution, it was disclosed that the people in each region believed that their region had the largest number of governmental units, despite the fact that the number of governmental units ranged from under 100 in South Florida to almost 2,000 in Chicago. After a chuckle, the fight over which region had the largest number broke out again. Nevertheless, fragmentation without a definition that implies non-alignment and under-representation has led to specialized, overly centralized metro-

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30. Jonathan D. Weiss, *Local Governance, in* STUMBLING TOWARD SUSTAINABILITY, *supra* note 10, at 683, 686. *See also* A. Dan Tarlock, *The Potential Role of Local Government in Watershed Management,* 32 ENVTL. L. REP. 11,273, 11,283 (2002) ("Watershed management provides an opportunity for governments to play a central role in the conservation of biodiversity and the promotion of environmentally sustainable development," but identifying fragmentation of legal authority for protection of watersheds as an obstacle).

31. Jonathan D. Weiss, *Local Governance, in* STUMBLING TOWARD SUSTAINABILITY, *supra* note 30, at 686.

32. Jonathan D. Weiss, *Local Governance, in* STUMBLING TOWARD SUSTAINABILITY, *supra* note 30, at 690–91.

politan entities that have absolutely failed to address the problems they were created to fix.[33] The challenge, it seems, is to achieve alignment among the many interests within a region, including the many municipalities and the larger number of economic and social interests, while simultaneously advancing the quality of representation and participation.

According to a recent international survey, only eighty-seven United States municipalities have local Agenda 21 plans or strategies.[34] By contrast, there are 2,042 such strategies in Germany, 429 in Italy, 425 in the United Kingdom, 359 in Spain, 289 in Sweden, 283 in Norway, 172 in South Korea, and 110 in Japan.[35] Such strategies are based on community participation; consider social, economic, and environmental issues together; include indicators; contain long-term goals and a plan for achieving them; and rely on monitoring and public oversight to track progress.[36] For better or worse, the term "Agenda 21" never caught hold in the United States. Nonetheless, many communities appear to be using the Agenda 21 conceptual framework without using the term. Among the cities taking sustainability most seriously are Austin, Texas, Boulder, Colorado, Chattanooga, Tennessee, Jacksonville, Florida, Portland, Oregon, Santa Monica, California, San Francisco, California, and Seattle, Washington.[37] These and other municipalities are beginning to show great creativity and innovation, employing such techniques as inclusionary zoning, incentives to developers to use existing sewer and water infrastructure, and reduced water usage.[38]

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33. The background papers and reports of the regional meetings are posted at http://info.cnt.org/mi.

34. *Second Local Agenda 21 Survey, supra* note 25, at 10.

35. *Second Local Agenda 21 Survey, supra* note 25, at 9–10. India has only fourteen and China has only twenty-five.

36. *Second Local Agenda 21 Survey, supra* note 25, at 8 (describing criteria for local Agenda 21 plans or strategies).

37. KENT E. PORTNEY, TAKING SUSTAINABLE CITIES SERIOUSLY: ECONOMIC DEVELOPMENT, THE ENVIRONMENT, AND QUALITY OF LIFE IN AMERICAN CITIES 177–219 (2003) (profiles of these eight cities); *see also* CONCERN, INC. & SUSTAINABILITY RESOURCE INSTITUTE, SUSTAINABILITY IN ACTION: PROFILES OF COMMUNITY INITIATIVES ACROSS THE UNITED STATES (1998) (national survey of community sustainable development efforts). Many communities have begun to tell their own story. *See, e.g.,* Legacy Project Steering Committee, *The Burlington Legacy Project: Becoming a Sustainable Community, in* THE LEGACY ACTION PLAN 4 (2000), *available at* http://www.iscvt.org/burlingtonlegacy.pdf (last viewed Mar. 25, 2003) (describing Burlington's approach to becoming a sustainable community as well as its implementation strategy); THE CITY OF AUSTIN SUSTAINABLE COMMUNITIES INITIATIVE, SCI WORK-PLAN (1996), *available at* http://www.ci.austin.tx.us/sustainable/workplan.pdf (last viewed Mar. 25, 2003) (describing Austin's social, economic, and environmental perspectives, as well as its specific activities and plans).

38. Weiss, *supra* note 30, at 692–94.

State Governance. Since the Rio Summit, a number of states have made substantial progress in creating and implementing policies aimed at achieving sustainable development. These efforts have both direct and indirect impacts on communities.[39] Three states, Oregon, New Jersey, and Minnesota, have relatively advanced "green planning" efforts.[40] More than half of the states in the United States issue state-of-the-environment reports, and almost as many engage in some kind of statewide planning.[41]

Maryland was one of many states that enacted a series of "smart growth" programs intended to reform land development practices by encouraging development in existing centers and discouraging development of greenfields.[42] Many states have undertaken other supportive policy-specific initiatives that are consistent with sustainable development, including laws and policies to foster smart growth, recycling, energy efficiency, renewable energy, watershed protection, pollution prevention, and redevelopment of brownfields.[43] A report by the Re-

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39. *See generally* John A. Pendergrass, *State Governance, in* STUMBLING TOWARD SUSTAINABILITY 701 (John C. Dernbach ed., 2002) (describing state efforts related to sustainable development over the past decade).

40. RESOURCE RENEWAL INSTITUTE, THE STATE OF THE STATES: ASSESSING THE CAPACITY OF STATES TO ACHIEVE SUSTAINABLE DEVELOPMENT THROUGH GREEN PLANNING vii (2001), *available at* http://greenplans.rri.org/pdf/sos_full_report.pdf . For example, the mid1980s, Oregon established a strategic planning process that resulted in the establishment of economic, social, and environmental health goals. The state uses these goals to help set policy, and issues a series of periodic reports assessing progress in meeting these goals. The most recent such report is OREGON PROGRESS BOARD, ACHIEVING THE OREGON SHINES VISION: THE 2001 BENCHMARK PERFORMANCE REPORT (2001), *available at* http://www.econ.state.or.us/opb/2001report/2001new.html [hereinafter 2001 BENCHMARK REPORT]. *Id.* at 3–4. The state uses letter grades, like a report card, that measure both recent and long-term progress on 25 key benchmarks. The most recent report gave the state a "C + ," up from its 1998 grade of a "C," primarily because of improvements in public safety. In response to an executive order by Governor John Kitzhaber (Exec. Order No. E0–00–07, 39 OR. ADMIN. R. BULL. 4 (July 1, 2000)), the state evaluated these goals in light of sustainable development principles, found them broadly consistent with sustainable development, and established a process for their refinement. *See* 2001 BENCHMARK REPORT, at App. E.

41. RESOURCE RENEWAL INSTITUTE, THE STATE OF THE STATES: ASSESSING THE CAPACITY OF STATES TO ACHIEVE SUSTAINABLE DEVELOPMENT THROUGH GREEN PLANNING viii (2001), *available at* http://greenplans.rri.org/pdf/sos_full_report.pdf.

42. *See, e.g.,* Parris N. Glendening, *Smart Growth: Maryland's Innovative Answer to Sprawl,* 10 B.U. PUB. INT. L.J. 416 (2001) (explanation of program by state's governor); s*ee also* Metropolitan Council, *Minnesota Smart Growth, available at* http://www.metrocouncil.org/index.htm (providing information about implementation of smart growth policies in Minnesota) (last viewed Mar. 25, 2003); The Smart Growth Network, Smart Growth Online, *About Smart Growth, at* http://www.smartgrowth.org/about/default.asp (last viewed Mar. 25, 2003). This site provides information about the following topics: community quality of life, design, economics, environment, health, housing, and transportation. Each topic area then provides extensive links to guidebooks, case studies, fact sheets, reports, articles, websites, programs, organizations, awards and competitions, and funding.

43. Pendergrass, *supra* note 39, at 713–714.

source Renewal Institute evaluating the "shifting emphasis toward sustainability" in all fifty states, however, shows a substantial gap between the leading and lagging states.[44]

National Governance. Any serious national effort to foster sustainable development would include significant support for sustainable communities. Yet national policies to foster community sustainability did not change significantly in the past decade.[45] Significant progress was made in promoting the redevelopment of brownfields and providing alternatives to highway transportation, but many federal laws continue to be obstacles to local sustainability. For example, the "federal mortgage interest deduction favors wealthier home buyers over those who are less wealthy, renters, multi-family property owners, and people who rehabilitate existing structures."[46] Recent research discloses that the spatial distribution of the home mortgage deduction yields inequitable economic distribution effects. Because of increasing lot sizes, home sizes, and correspondingly larger mortgage financing packages, and because the deduction is indexed to income, the deduction is worth more to borrowers in the suburbs and newer areas than in central cities and older areas.[47]

The United States has no national strategy for sustainable development, much less a specific strategy for fostering or encouraging sustainable communities. Despite the evident benefits of making social, economic, environmental, and security goals work in mutually reinforcing ways, there is little or no strategic thinking or action at the national

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44. RESOURCE RENEWAL INSTITUTE, *supra* note 40, at v. Only seven states (Oregon, New Jersey, Minnesota, Maine, Washington, Massachusetts, and Vermont, in descending order) are rated at a value greater than 50 on a 100 point scale. RESOURCE RENEWAL INSTITUTE, *supra* note 40, at 20–21. Of these states, only the top three have strategies that resemble green plans, with ratings at or greater than 64 points. RESOURCE RENEWAL INSTITUTE, *supra* note 40, at 20–21. The parameters of the rating are based upon include the incorporation of state of the environment reports, availability of information to the public, state sustainability planning, state planning office, strength of state planning, federal delegation programs delegated to state, air quality controls, pollution prevention, and renewable energy. RESOURCE RENEWAL INSTITUTE, *supra* note 40, at 22–24.

45. Weiss, *supra* note 30, at 687–89.

46. Weiss, *supra* note 30, at 689. *See also* Roberta F. Mann, *The (Not So) Little House on the Prairie: The Hidden Costs of the Home Mortgage Interest Deduction,* 32 ARIZ. ST. L.J. (2000) [hereinafter Mann, *Hidden Costs*].

47. Joseph Gyourko & Todd Sinai, *The Spatial Distribution of Housing-Related Tax Benefits in the United States, available at* http://www.brook.edu/es/urban/publications/gyourko.pdf. *See also* Richard Voith & Joseph Gyourko, *Capitalization of Federal Taxes, The Relative Price of Housing and Urban Form: Federal Reserve Bank—Philadelphia Working Papers Density and Sorting Effects, available at* http://phil.frb.org/files/wps/2000/wp00–12.pdf.

level on behalf of sustainable development. Nor is there a coordinating or implementing entity for sustainable development.[48]

The President's Council on Sustainable Development (PCSD) (1993–99), an advisory council established by President Clinton, could have provided the basis for a national strategy. The council brought together diverse stakeholders from around the country and fashioned a detailed set of recommendations for sustainable development in the United States. However, the council had no authority to implement its own recommendations and neither President Clinton nor Vice President Gore showed interest in seeking implementation.[49] Congress was similarly apathetic during that time.

PCSD's primary work product appears in a series of reports by the Council and its task forces. In early 1996, the PCSD issued its first report, *Sustainable America: A New Consensus for Prosperity, Opportunity, and a Healthy Environment for the Future.*[50] The report recom-

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48. *See* John C. Dernbach, *National Governance, in* STUMBLING TOWARD SUS-TAINABILITY 723 (John C. Dernbach ed., 2002).

49. The charter of the PCSD and its original appointees, as well as the agenda that was established by the White House Office of Environmental Policy (the office formerly known as, and later known once again as, the Council on Environmental Quality) was aimed at producing the appearance of consensus between large corporations and others on environmental, and not economic policy issues. Economic policy issues tended to be discussed in terms of a more or less centrist regulatory reform strategy with efforts to achieve superior performance to be rewarded through streamlining and flexibility. This same theme was also carried through in efforts such as Project XL and a similar advisory council on which one of the authors served, the White House Policy Dialogue to Reduce Greenhouse Gas Emissions from Personal Motor Vehicles (aka "Car Talk"). In the full PCSD meetings, and particularly in the Sustainable Communities meetings, much was said about the equal importance of something called "equity." Yet the PCSD produced very few tangible recommendations that would, for example, capture the economic value of resource efficiency and/or environmental improvement to the benefit of disadvantaged persons. Exceptions occurred in the first report in the chapter on sustaining communities, and in the second report, on metropolitan and rural strategies. This may have been the result of the lead taken by the White House environmental policy office, to the exclusion of the other domestic policy offices, such as the National Economic Council and the Domestic Policy Council. As a result, there was strong participation at the highest levels by such agencies as the U.S. Department of Agri-culture, the Environmental Protection Agency, the National Ocean and Atmospheric Administration, and the Department of Energy. Yet participation by the Department of Transportation (DOT), the Department of Housing and Urban Development (HUD), and other agencies with a community or economic development mission, was sporadic. The Department of Commerce was a notable and important exception, but its strong participation ended with the tragic death of Ron Brown, its secretary. Still, the De-partment of Commerce's brief does not include place-based policies of the kind that HUD or DOT have. The Department of Labor and the Department of Health and Human Service did not participate at all. It would be interesting to compare the analogous record for the sustainable development commissions of other nations, in terms of the scope of policies considered and the range of agency participation.

50. *Sustainable America*, *supra* note 6. In preparing this report, the Council re-viewed proposed recommendations by more than 450 experts who worked in small

mended 154 specific actions in thirty-eight policy areas, including communities. These recommendations were not directed solely toward the federal government, but were directed to all sectors. The report recommends strengthening communities by redeveloping brownfield sites; using community-driven planning, regional planning, building and community design, and growth management; and strengthening economies by using environmental protection as a tool for creating jobs.[51] While such reports[52] encouraged sustainable community efforts, they led to few national policy changes.[53]

B. *Issue-Specific Efforts*

In the last ten years, the most dramatic progress toward sustainability has occurred in two areas: brownfields redevelopment and public participation. On many other issues, such as land use, transportation, housing, public health services, and education, there was little movement or, worse still, movement away from sustainability.

   Brownfields Redevelopment. Much progress was made toward brownfields redevelopment over the past decade, although questions remain about whether the design of existing voluntary cleanup laws will lead to lasting and publicly credible cleanups. The United States

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task forces in specific subject areas. *See also* Jonathan Lash, *The Process and People Behind the Report of the President's Council on Sustainable Development,* 3 WIDENER L. SYMP. J. 456, 460 (1998) (describing the report as both "extraordinarily optimistic and pragmatic").

   51. *Sustainable America*, *supra* note 6, at 83–107. In addition, the PCSD publicized local sustainable development efforts that were already underway. *See, e.g.*, NANCY SKINNER & BILL BECKER, PATTONSBURG, MISSOURI: ON HIGHER GROUND (1995) (case study for PCSD describing effort by town of 200, which was nearly destroyed in a 1993 flood, to rebuild in a sustainable manner). For more information on building design, *see* United States Green Building Council, *available at* http://www.usgbc.org/ (last viewed Mar. 25, 2003) (gateway to sustainable design tools and resources available to green building practitioners and building industry); MINNESOTA SUSTAINABLE DESIGN GUIDE, *available at* http://www.sustainabledesignguide.umn.edu/ (last viewed Mar. 25, 2003) (providing decision tool and rating system for integrating more sustainable design and operational choices into building design, construction, occupancy, renovation, and reuse/end-use).

   52. PRESIDENT'S COUNCIL ON SUSTAINABLE DEVELOPMENT, TOWARDS A SUSTAINABLE AMERICA: ADVANCING PROSPERITY, OPPORTUNITY, AND A HEALTHY ENVIRONMENT FOR THE 21ST CENTURY 57–83 (1999), *available at* http://clinton4.nara. gov/media/pdf/tsa.pdf; SUSTAINABLE COMMUNITIES TASK FORCE REPORT, *supra* note 12.

   53. The federal advisory committee was designed to not involve or report to Congress; the Clinton Administration was somewhat skittish about relations in that direction. Some processes were intended to affirm a theme, proposal, or trend for which there was already a bandwagon, and little thought or planning was given to how to follow through. As indicated earlier, the PCSD proposals were complex and required broader policy support than could be provided through the limited lens of environmental policy offices in the executive branch.

has as many as 500,000 brownfield sites: properties that are under-developed or abandoned because of actual or potential contamination from past industrial or commercial use.[54] These sites tend to be located in urban areas because such areas were once the location of choice for the industrial activities that created them. Lack of use or under use of these sites inadvertently resulted from the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA)[55] and its state counterparts. CERCLA imposed significant liability on owners and operators of contaminated sites, and thus un-intentionally created disincentives to use or own such sites.[56] CERCLA also created a government-initiated cleanup program that has provided little incentive for owners or operators to initiate their own cleanups.

In the past decade, many states have adopted laws to facilitate the reuse of brownfield sites through voluntary cleanup programs.[57] These laws encourage and allow private actors to clean up sites, even when the government has not acted, in order to make new uses of these sites. These laws confer three principle advantages on private sector actors and others who are willing to remediate the site—streamlined admin-istrative cleanup procedures, relaxed cleanup standards, and liability protection.[58] Brownfields revitalization is widely viewed as successful, as thousands of sites have been remediated in state programs. At the end of 2001, Congress adopted similar provisions under CERCLA.[59]

In principle, these statutes should encourage and allow economic development that also reduces environmental contamination. In that respect, they provide tangible evidence of progress toward sustainable development. In addition, each decision to remediate and reuse a brownfield site eliminates "environmental health risks while promot-ing reinvestment, creating jobs, slowing the acceleration of suburban

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54. Joel B. Eisen, *Brownfield Redevelopment, in* STUMBLING TOWARD SUSTAIN-ABILITY 457 (John C. Dernbach, eds., 2002).

55. 42 U.S.C. §§ 9601–75 (2000).

56. Under CERCLA, owners of land contaminated with hazardous substances are generally responsible for cleanup of that land. *Id.* § 9607(a)(1). The act contains a narrow exception for "innocent" landowners. *Id.* § 9607(b)(3). Governmental cleanup actions tend to focus on the most heavily contaminated sites, but the amount of liability on any site is not limited by the property's value. Because operations on that land can also trigger CERCLA liability, even for persons who did not cause the initial contam-ination, the specter of CERCLA liability is a substantial disincentive to own or use land that has been contaminated with hazardous substances. *Id.* § 9607(a)(1),

57. *See* Joel B. Eisen, *"Brownfields of Dreams"?: Challenges and Limits of Vol-untary Cleanup Programs and Incentives,* 1996 U. ILL. L. REV. 883 (1996).

58. Eisen, *supra* note 54, at 459–60.

59. Small Business Liability Relief and Brownfields Revitalization Act, Pub. L. No. 107–118, 115 Stat. 2356 (2002). For an analysis of that legislation, see Dale A. Guar-iglia et al., *The Small Business Liability Relief and Brownfields Revitalization Act: Real Relief or Prolonged Pain?,* 32 ENVTL L. REP. 10,505 (2002).

'greenfields' development, decreasing polarization of communities, and fostering public involvement in every aspect of redevelopment efforts."[60] Brownfield redevelopment thus involves integrated decision-making, promotion of sustainable human settlements, and public participation, all central features of sustainable development. Yet the lack of significant government oversight concerning these programs leaves questions about whether cleanups have actually occurred. In addition, there are reasons to believe that current cleanup activities may be considered insufficient by future generations and that the public participation in these cleanup activities is not adequate.[61]

Public Participation. Because of its importance to transparent government and practical implementation, public participation lies at the core of sustainability efforts. Public participation suggests an array of elements important to good governance, including wide public access to information, opportunities for citizens to organize and take part in collective decision-making, and breadth of representation across lines of race and class. Public access to information has increased significantly over the past decade and many United States communities have developed sustainable development indicators. The most important development of the past decade according to Frances Irwin and Carl Bruch, was not in laws but in the huge increase in access to information through the Internet.[62] The Internet enables the broader and more sophisticated distribution of information that previously had been available primarily on paper in libraries or through regular mail. For instance, Environmental Defense, an environmental advocacy organization, developed a web-based scorecard that allows residents to find emissions from specific factories or power plants in their community.[63] The Transportation Research Board of the National Academy of Sciences sponsored a website to enable visualization of the carbon emissions from transportation for any community in the country.[64] In addition, collaborative stakeholder-based decision-making processes became more frequently used for many public issues. These processes can bring new information and multiple perspectives into decision-making, and can foster consideration of options that might otherwise

60. Eisen, *supra* note 54, at 457.

61. Eisen, *supra* note 54, at 462–65.

62. Frances Irwin & Carl Bruch, *Public Access to Information, Participation, and Justice, in* STUMBLING TOWARD SUSTAINABILITY 511 (John C. Dernbach ed., 2002).

63. Environmental Defense, *Scorecard, available at* http://www.scorecard.org (last visited Mar. 11, 2003).

64. Center for Neighborhood Technology, *available at* http://www.travelmatters. org.

have been missed.[65] Local, state, and federal governments have also become more sensitive to the intersection between environmental protection and social justice in response to claims concerning environmental justice.[66]

Progress in community access to information really started back in the early 1970s when mostly urban community-based organizations coalesced around the idea that lenders have a responsibility to invest the majority of their depositors' dollars back into the communities that they are chartered to serve. Early regulatory rulings were reinforced with the passage of the Home Mortgage Disclosure Act and shortly thereafter by the Community Reinvestment Act. In the Clinton Administration, specific actions were taken despite strong resistance from the financial services industry, to increase transparency and to provide computer- and Internet-aided tools as portals to simplify access to complex databases. This access to data on lending practices, on the sources of toxic releases, and on the origins and destinations of public investments, is based on geography. As a result, there was an important coming together in the 1990s around the idea that place matters, aided and abetted by the emergence of the National Information Infrastructure, federal policies to ensure access and transparency, and federal policies to accelerate the geographical coding of information in conjunction with the emergence of geographic information software.[67]

Finally, at least eighty-seven U.S. cities have explicitly adopted sustainable development indicators.[68] These indicators measure how sustainable the city is using economic, social, environmental, governance, and equity criteria. They also differ from city to city. These indicators are often, but not always, developed with intensive citizen participation. Among other things, such indicators provide the public with information about local progress toward sustainability.[69]

But other trends have cut the other way. The last decade saw a continuation of declining civic engagement.[70] While there has been an in-

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65. Irwin & Bruch, *supra* note 62, at 527.

66. Patricia E. Salkin, *Land Use, in* STUMBLING TOWARD SUSTAINABILITY 369 (John C. Dernbach ed., 2002).

67. Bernstein, *supra* note 21. Some leading organizations promoting affirmative information access, among others, are: OMB Watch, www.ombwatch.org; the Benton Foundation for Communications, www.benton.org; the Right to Know Network, www.rtknet.org; the Woodstock Institute, www.woodstockinst.org; and the National Community Reinvestment Coalition, www.ncrc.org.

68. *Second Local Agenda 21 Survey, supra* note 25, at 10. *See also* PORTNEY, *supra* note 37, at 37 (suggesting that more than sixty U.S. cities have such indicators).

69. PORTNEY, *supra* note 37, at 31–75.

70. Irwin & Bruch, *supra* note 62, at 527. *See also* ROBERT D. PUTNAM, BOWLING ALONE: THE COLLAPSE AND REVIVAL OF AMERICAN COMMUNITY (2000).

crease in innovative grass roots efforts, and in efforts to promote community building,[71] the decline has been in traditional kinds of social organization participation and in voting. The September 11, 2001 terrorist attacks have led to some reductions in the type of information available over the Internet. These changes are a concern because it is increasingly clear that an informed citizenry can provide a powerful defense against terrorism.[72]

Land Use. Sprawl continued in the past decade despite some concrete efforts in some states and municipalities. By contrast, "[s]ustainable land development requires consistent integration of social, environmental, and economic considerations in decision-making to produce results that promote a sound, coordinated, and harmonious built environment."[73] Sustainable land development policies would minimize sprawl and maximize sound development opportunities to conserve important lands, preserve the natural environment, protect air and water quality, promote affordable housing through compact development and urban renewal, and encourage urban "infill" rather than rural development.[74] Although local governments traditionally made land use decisions by themselves, land use decisions by one municipality affect other municipalities. Federal transportation and environmental laws as well as state zoning and land use laws, in turn, affect municipalities. For example, while mixed-use zoning promotes walkable, pedestrian-friendly neighborhoods, most municipalities still require single-use zoning because of the way state zoning laws are written.[75] Sustainable land use thus requires both horizontal and vertical integration among governments.[76]

The "smart growth" movement became a kind of shorthand for sustainable land use because it embodies many principles of sustainable land use. In fact, the last decade saw "an unprecedented level of attention and activity at the state level."[77] About half the states revised their planning and zoning enabling laws, some comprehensively and some modestly, to provide local governments with tools to promote sustainable land use.[78] In addition to these state-level

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71. JOHN L. MCKNIGHT & JOHN KRETZMANN, BUILDING COMMUNITIES FROM THE INSIDE OUT (ACTA Publications 1997).

72. Irwin & Bruch, *supra* note 62, at 532.

73. Salkin, *supra* note 66, at 369.

74. Salkin, *supra* note 66, at 371–72.

75. Weiss, *supra* note 30, at 693–94.

76. Salkin, *supra* note 66, at 369. The big question, "the lightening rod of land use reform," is whether traditional local land use planning and decision-making can achieve sustainable development. Salkin, *supra* note 66, at 369–70.

77. Salkin, *supra* note 66, at 377.

78. Salkin, *supra* note 66, at 378, 381.

changes,[79] task forces from a majority of states collectively made a total of 160 recommendations to foster sustainable land use.[80] Still, there is a wide gap between what is advocated and what is actually achieved in legislation,[81] and on balance, relatively little change occurred.[82]

All too often, these laws leave untouched a framework of state laws that authorize "largely autonomous municipalities," each of which must depend largely on property taxes raised within its boundaries to pay for services. Such laws encourage municipalities to compete for property wealth and exclude less expensive housing, which fosters sprawl and impedes intermunicipal cooperation.[83] In addition, rapid decentralization makes it financially difficult, even impossible, for many municipalities to fulfill obligations to maintain infrastructure and public investments that are already in place. These investments become "stranded" and, in extreme cases, "abandoned" assets. Because smart growth continues to have political traction, though, it appears that states are only beginning to make changes that will lead them to more sustainable land use.[84]

Transportation. Despite major federal legislation moving transportation toward sustainability, real-world transportation activities over the past decade became less sustainable. Transportation has an enormous impact on the sustainability of communities, affecting energy and land use, economic development, and quality of life.[85] The traditional approach to transportation planning in the United States has been to "maximize roadway capacity, travel speed, and mobility, generally within the context of large subsidies to motorized transportation."[86] A sustain-

79. Patricia E. Salkin, *The Smart Growth Agenda: A Snapshot of State Activity at the Turn of the Century,* 21 ST. LOUIS U. PUB. L. REV. 271 (2002) (state-by-state summary of legislative initiatives, executive orders, and ballot initiatives). *See also* William W. Buzbee, *Sustainable Growth: Evaluating Smart Growth Efforts in the Southeast,* 35 WAKE FOREST L. REV. 509 (2000).

80. Salkin, *supra* note 66, at 379–80, 387–400 (table summarizing state task force recommendations). Another positive development occurred at the national level, when the federal government took notice of environmental injustice in the siting of various locally unwanted land uses and took initial steps to foster greater social equity. Salkin, *supra* note 66, at 374–75.

81. Salkin, *supra* note 66, at 381–82.

82. Salkin, *supra* note 66, at 377. *See also* Patricia E. Salkin, *Smart Growth and Sustainable Development: Threads of a National Land Use Policy,* 36 VAL. U. L. REV. 381 (2002).

83. Weiss, *supra* note 30, at 690.

84. Patricia E. Salkin, *Smart Growth and Sustainable Development: Threads of a National Land Use Policy,* 36 VAL. U. L. REV. 384 (2002).

85. *See* PETER NEWMAN & JEFFREY KENWORTHY, SUSTAINABILITY AND CITIES OVERCOMING AUTOMOBILE DEPENDENCE (Island Press 1999).

86. F. Kaid Benfield & Michael Replogle, *Transportation, in* STUMBLING TOWARD SUSTAINABILITY 647, 648 (John C. Dernbach ed., 2002).

able transportation system, by contrast, "seeks to maximize efficiency in overall resource use."[87] In Agenda 21's words, it is "more efficient, less polluting and safer."[88] The journey toward sustainable transportation involves greater diversity in modes of transportation, including more use of public transit, walking, and bicycling. The journey also includes greater sensitivity to communities and the environment, more efficient transportation, and greater connectivity between modes of transportation (e.g., park-and-ride for mass transit). Finally, progress toward sustainable transportation requires users to pay the true costs of their transportation.[89]

American transportation policy has taken some steps toward sustainability, although it has a long way to go. Just before the Rio Summit in 1991, Congress passed the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991.[90] Although ISTEA authorized substantial federal funding for highway expansion, it also gave greater emphasis to other forms of transportation as well as environmental protection and economic efficiency. In 1998, the statute was reauthorized as the Transportation Equity Act for the 21st Century (TEA-21) with relatively minor changes.[91] Both laws rely heavily on a planning process established for metropolitan areas and states that is intended to "minimize transportation-related fuel consumption and air pollution."[92] This planning process has proven relatively effective; since these acts were adopted, few major new federal highways have been built.[93]

Despite some positive trends in the past decade, the environmental impacts of transportation increased. From 1995 through 2000, transit use grew 21 percent while driving increased by just 11 percent.[94] The growth rate in vehicle miles traveled per capita slowed somewhat from what it had been in the 1980s, but the number of vehicle miles traveled grew from 2 to 2.6 trillion miles between 1990 and 1998.[95] These numbers all point to increased inefficiency in travel patterns that include "an increase in average trip length, growth in the number of vehicle trips taken per person and per household per year, a decline in all modes

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87. *Id.*
88. Agenda 21, *supra* note 1, ¶ 9.15(a).
89. Benfield & Replogle, *supra* note 86, at 648–49.
90. Pub. L. No. 102–240, 105 Stat. 1914 (1991).
91. Pub. L. No. 105–178, 112 Stat. 107 (1998).
92. 49 U.S.C. § 5301(a) (2003).
93. Scott Bernstein, Housing and Sustainability in the United States (2002) (unpublished manuscript on file with the author).
94. Benfield & Replogle, *supra* note 86, at 658.
95. Benfield & Replogle, *supra* note 86, at 651, 658.

of travel other than single-occupancy driving, and a decline in average vehicle occupancy."[96] More broadly, transportation is responsible for two-thirds of all United States oil consumption[97] and 97 percent of energy used for transportation in the United States is from petroleum sources. The United States imported 58 percent of petroleum used domestically in 2000; at current rates of growth, the figure will be 68 percent in 2010.[98]

Transportation is also responsible for rising carbon dioxide emissions and continuing unhealthy air quality. Parking lots take up more land than any other type of land use in some municipalities, and Americans spend "roughly one of every eight waking hours in our cars."[99] Negative environmental trends are likely to continue; the U.S. population is projected to grow by 60 million by 2025, and vehicle miles traveled are expected to grow to 8.4 trillion miles in 2025.[100] As a consequence, we are not getting closer to the goal of sustainability in transportation.

Transportation provides perhaps the best example of why we need to deal with environment and economy simultaneously. From a household point of view, transportation is the largest household expenditure after housing. Transportation expenditures have risen from one dollar out of ten fifty years ago to one dollar out of five today.[101] For each 1 percent increase in developed land in a metropolitan level, daily vehicle-miles traveled increases by 1.25 percent. It also works the other way; for each doubling of density within a region, annual vehicle miles traveled decrease by 20 to 40 percent irrespective of income and household size.[102] Travel demand is inversely related to convenience and accessibility; the more proximity between people and what they do, and the more availability of mass transit for longer distance trips, the lower the need for automobile transportation. Therefore, the cost of transportation is more associated with attributes of location than any-

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96. Benfield & Replogle, *supra* note 86, at 652.
97. Benfield & Replogle, *supra* note 86, at 652.
98. Center for Clean Air Policy, Center for Neighborhood Technology and Surface Transportation Policy Project, Climate Matters: The Case for Addressing Greenhouse Gas Reduction in Federal Transportation Policy (January 2003), *available at* http://www.fundersnetwork.org/info-url_nocat2778/info-url_nocat_show.htm?doc_id=148724.
99. Benfield & Replogle, *supra* note 86, at 653.
100. Benfield & Replogle, *supra* note 86, at 647.
101. SCOTT BERNSTEIN & RYAN MOONEY-BULLOCK, DRIVEN TO DEBT (forthcoming 2003).
102. John Holtzclaw et al, *Location Efficiency: Neighborhood and Socioeconomic Characteristics Determine Auto Ownership and Use, Studies in Chicago, Los Angeles and San Francisco,* 25 TRANSP. PLAN. & TECH. 1–27 (2002).

thing else. The cost of housing and transportation together in most of the United States is easily over 50 percent of total household expenditures.[103] The largest single use of credit by households is for automobile finance, and modest income households have a limited total amount of credit available. In addition, the largest reason for denial of credit to potential first time homebuyers is excessive use of consumer credit. The single largest use of consumer credit is for car purchases. Thus, the amount of household resources tied up in owning more cars is possibly the largest limiting factor toward achieving home ownership today. So the car-dependence bred by sprawl is keeping a large number of Americans from getting out of poverty; in a sense, this is "when the American Dream prevents the American Dream."[104]

Housing. Housing is an essential and valuable part of every community. Existing housing in the United States is valued at $10 trillion, which is one-third of the net worth of the United States' total capital stock.[105] Between 1.2 and 1.6 million private housing units were constructed annually between 1992 and 2001.[106] Yet the annual demolition rate for housing units is at least 245,000 units[107] and perhaps as many as 600,000 units.[108] These demolished units are replaced by bigger homes that require more expensive infrastructure and are built at growing distance from places of work and other amenities than the demol-

103. Center for Neighborhood Technology and Surface Transportation Policy, *Driven to Spend* (2001) *available at* http://www.transact.org (detailing that the percentage of household expenditures devoted to transportation is becoming a recognized, legitimate indicator of relative cost of living). *See also* PLAN. (May 2003) (special issue on transportation).

104. Center for Neighborhood Technology and Surface Transportation Policy, *Driven to Spend* (2001), *available at* http://www.transact.org.

105. Bernstein, *supra* note 93. In fact 80 to 90 percent of housing that exists today will exist in twenty years. Bernstein, *supra* note 93.

106. U.S. CENSUS BUREAU, U.S. DEP'T OF COMMERCE, STATISTICAL ABSTRACT OF THE UNITED STATES: 2002 at 590, Tbl. 920 (2002), *available at* http://www.census.gov/prod/2003pubs/02statab/construct.pdf.

107. FRANKLIN ASSOCIATES, CHARACTERIZATION OF BUILDING-RELATED CONSTRUCTION AND DEMOLITION DEBRIS IN THE UNITED STATES 2-4–2-5 (Prep'd for Office of Solid Waste and Emergency Response, U.S. Envtl. Protection Agency, Rep. No. EPA530-R-98–010, 1998), *microformed on* Sup. Docs. No. EP 1.2:C 37/4 (U.S. Gov't Printing Office), *available at* http://www.epa.gov/epaoswer/hazwaste/sqg/c&d-rpt.pdf. *See also* BUREAU OF THE CENSUS, U.S. DEP'T OF COMMERCE & OFFICE OF POLICY DEV. AND RESEARCH, U.S. DEP'T OF HOUSING AND URBAN DEV., COMPONENTS OF INVENTORY CHANGE: 1980–1993, at xxii, 149 (American Housing Survey, Current Housing Reports H151/93–2, 1996), *available at* http://www.census.gov/prod/2/constr/h151932.pdf (stating that 3,305,000 housing units were demolished between 1980 and 1993).

108. Bernstein, *supra* note 93. The United States does not do a good job of tracking life cycles of major investments. The Department of Housing and Development and the Bureau of the Census stopped collecting national information on demolitions after 1995.

ished dwellings. At the same time, the number of people living in each housing unit declines, and the size of new homes as well as the lots on which they are built increases. Furthermore, the cost of sewer, water, and other infrastructure for "greenfield" housing is estimated at $60,000 per dwelling unit, compared to zero for a built-up area that is not contaminated with hazardous substances.[109]

Regionally, the implications are staggering. The projected population growth in one region, metropolitan Chicago, is expected to be approximately 800,000 households from 2000 to 2030.[110] One hundred percent of this could be accommodated within the existing footprint if all necessary housing was located within walking (one-half mile) or bus shuttle (three mile) distance of the existing rail-based mass transit network. At a conservatively estimated savings level of $50,000 per dwelling (including a budget of $10,000 per unit for modest cleanup and utility upgrade for brownfields and grayfields), building within the existing footprint in this one region alone could result in net savings of $40 billion.[111]

As with land use, federal tax policy heavily contributes to these trends. The mortgage interest tax deduction creates a major incentive for this kind of suburbanization,[112] as does the property tax deduction.[113] By contrast, a 1997 amendment to the Internal Revenue Code, which permits homeowners to purchase less expensive homes in cities without incurring capital gains tax for the sale of the more expensive home in the suburbs,[114] was a step toward sustainability.[115]

Public Health Services. Little has changed concerning basic public health over the past decade, which means that the public health system continues to be vulnerable to a variety of problems, including terrorism. Basic public health services, which focus on community health, are "critical to a more just and economically sound nation."[116] In 1988, the

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109. Bernstein, *supra* note 93.

110. Estimates by Center for Neighborhood Technology, 2003, based on official demographic projection by the Northeastern Illinois Planning Commission to 2020 and further projection by the Regional Economics Application Laboratory for Chicago Metropolis 2020, *available at* http://www.metropolisplan.org/SectionIII_Scenarios.pdf.

111. *Id.*

112. *See* Mann, *Hidden Costs, supra* note 46.

113. Bernstein, *supra* note 93.

114. 26 U.S.C. § 121.

115. JAMES M. MCELFISH, JR. & ERIC FELDMAN, ENVIRONMENTAL LAW INSTITUTE, LINKING TAX LAW AND SUSTAINABLE URBAN DEVELOPMENT: THE TAXPAYER RELIEF ACT OF 1997 (1998).

116. Edward P. Richards, *Medical and Public Health Services, in* STUMBLING TOWARD SUSTAINABILITY 667 (John C. Dernbach ed., 2002) (stating that medical services, by contrast, tend to focus on the diseases and injuries of individuals).

National Institute of Medicine published a comprehensive assessment of the United States public health system, entitled *The Future of Public Health.*[117] Many of the improvements in the health of Americans, the report said, have occurred because of public health measures, including sanitation and prevention of communicable diseases.[118] Yet the assessment concluded that "public health is currently in disarray," because there is little agreement about its specific mission, it is poorly understood by the public, and it is driven by "crises, hot issues, and the concerns of organized interest groups."[119] Little has changed since the 1988 report was released.[120]

The effectiveness of the U.S. sanitation system is indicated by the relatively infrequency with which water and food borne illnesses occur.[121] Yet the public health system has suffered from decades of neglect, a lack of national standards, fragmentation of staffing and resources among thousands of legal jurisdictions, and a general lack of public support and funding. As a result, the system is vulnerable to breakdowns and has a limited ability to cope with new threats, including terrorism and climate change.[122] While air and water pollution control laws have significantly improved public health in cities, air pollution levels continue to exceed public health standards in many areas.[123]

Communicable diseases, including HIV/AIDS, occur in the United States at higher levels than many other developed countries.[124] Communicable diseases are transmitted from person to person, and are thus different from sanitation or environmental diseases.[125] The poor suffer disproportionately from such diseases.[126] Ironically, past success in reducing or eradicating smallpox, polio, measles, and tuberculosis has undermined public support for communicable disease control spending and programs.[127]

Education. Education for sustainability made only halting progress in kindergarten through twelfth grade (K-12) and in higher education over the past decade, despite its importance to communities. Educa-

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117. INSTITUTE OF MEDICINE, NATIONAL ACADEMY OF SCIENCE, THE FUTURE OF PUBLIC HEALTH (1988), *available at* http//www.nap.edu/books/0309038308.html.

118. *Id.* at 1.

119. *Id.* at 4–6.

120. Richards, *supra* note 116, at 671.

121. Richards, *supra* note 116, at 672.

122. Richards, *supra* note 116, at 672–73.

123. Richards, *supra* note 116, at 672–73.

124. Richards, *supra* note 116, at 672–73.

125. Richards, *supra* note 116, at 673–74.

126. Richards, *supra* note 116, at 675 (explaining that they have limited access to medical services and that communicable diseases are more prevalent in poor areas).

127. Richards, *supra* note 116, at 674.

tion, including education for sustainability, provides future voters and decision-makers with the intellectual tools needed to achieve a sustainable society. If students are taught to see the social, economic, and environmental aspects of specific issues in school, Carmela Federico and others have argued, they are more likely to see these aspects in later life.[128] These connections should be easier to teach and learn when examples from the community itself are used. Government can provide information and ideas, but our K-12 educational institutions, as well as our institutions for higher education, also have a crucial role to play. Although education for sustainability has many aspects, several features are particularly relevant to communities.

At the K-12 level, an understanding of what sustainability education should mean has evolved over the past decade.[129] Important knowledge, skills, and dispositions include not only ecological literacy and human-environmental relationships, but also citizenship and the importance of place.[130] While each of these is being taught, to some degree, in some classrooms, education for sustainability "has only a toe-hold" in mainstream K-12 education in the United States.[131]

Higher education for sustainability is similar to K-12 education for sustainability in that it is designed to help students think in an integrated manner about the social, economic, and environmental aspects of problems. According to Wynn Calder and Richard Clugston, higher education for sustainability includes more interdisciplinary learning as well as orientation of campus operations to reduce an institution's "ecological footprint."[132] It also includes partnerships between an institution and public or private entities at the local, regional, or state level.[133] Thus, institutions of higher education could provide not only knowledge and skills relevant to sustainability that local and regional employers would value, but also collaborative problem solving with the public and private sectors at the community level.[134] Many colleges and

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128. Environmental education tends to focus on the environment itself, while education for sustainability tends to focus on relationships among the environmental, social, economic, and even security aspects of particular issues, problems, or goals. Carmela M. Federico et al., *Kindergarten Through Twelfth Grade, in* STUMBLING TOWARD SUSTAINABLITY 607, 608 (John C. Dernbach ed., 2002).

129. Federico, *supra* note 128, at 607–08.

130. Federico, *supra* note 128, at 613.

131. Federico, *supra* note 128, at 616.

132. Wynn Calder & Richard M. Clugston, *Higher Education, in* STUMBLING TOWARD SUSTAINABILITY 625 (John C. Dernbach ed., 2002).

133. Calder & Clugston, *supra* note 132, at 625, 630 (citing MARY MCINTOSH ET AL., STATE OF THE CAMPUS ENVIRONMENT, which provides an assessment of a nationwide campus sustainability survey, *available at* http://nwf.org/campusecology/stateofthecampusreport.cfm#vision).

134. Calder & Clugston, *supra* note 132, at 636–38.

universities are moving in this direction, but "an authentic institutional commitment to sustainable development is rare."[135]

IV. Looking Forward: Recommendations for the Next Decade

We may not know the precise appearance of a sustainable community, but we have a very good idea of the next steps needed on the journey. The many communities in the United States and other countries that have already made progress toward sustainability provide experience and ideas for others. Thoughtful recommendations from the contributors to *Stumbling Toward Sustainability* also help point the way.

A. *Governance*

Sustainable communities require the commitment of local governments, but sustainable communities cannot be achieved by local governments alone. The journey toward sustainable communities requires local governments to work with other local governments in a region, and requires supportive state and national policies.[136] More broadly, it requires the active participation and involvement of businesses, nongovernmental organizations, and private citizens.[137] Thus, an essential aspect of the journey toward sustainability is more collaborative governance and greater public involvement in the development and implementation of laws and policies on behalf of sustainable communities. In addition, each level of government has particular responsibilities.

Local Governance. Municipalities should adopt and implement strategies for sustainability. Whether they call these strategies Local Agenda 21s or not, they should use extensive public participation; integrate social, economic, environmental, and security issues; develop indicators; set goals; and carry out their strategies. In addition, municipalities should charge, and be empowered to charge, fees requiring developers to pay the full cost of new services and infrastructure. As municipalities move toward a regional approach, each municipality in a region should also accept its "fair share" of affordable housing units.[138] In these efforts, municipalities should establish public/private partnerships and broad-based consensus-building efforts.[139]

Another helpful response to the challenge of arbitrary boundaries would be the increased use of creative governmental and nongovern-

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135. Calder & Clugston, *supra* note 132, at 631.
136. Verchick, *supra* note 20, at 472–73.
137. Weiss, *supra* note 30, at 698–99.
138. Weiss, *supra* note 30, at 697–98.
139. Weiss, *supra* note 30, at 698.

mental community, business, and special government organizations that are custom-designed for the task at hand. The requirement in national transportation law that citizen participation be "early and continuing" should be applied to the creation and operation of such organizations. The federal government should take the lead by setting quality standards for participation when it is involved.[140]

State Governance. In the next five to ten years, states need to make sustainable development an explicit goal[141] and develop appropriate strategies and indicators. Among other things, these strategies should foster coordination among municipalities within the state, and more generally should foster sustainable communities. States need to move "toward a system that better promotes regional governance and shares taxes within a region" by establishing appropriate incentives and disincentives as well as regional coordinating entities.[142] States should also modify their zoning laws to encourage more mixed-used zoning (that is, zoning that allows many different but compatible uses in the same zoning areas).[143] Mixed-use zoning can permit a blending of commercial and residential uses as well a blending of high-income and low-income residential uses. It thus makes it easier for people to get to work, regardless of their income, and promotes social interaction.[144] Governors should ensure adequate and effective interagency cooperation by designating a cabinet-level person who will be responsible for fostering sustainable development, including sustainable land development.[145]

National Governance. The United States should adopt and implement a national strategy for sustainable development that includes institutional and financial support for sustainable communities. The strategy should include meaningful goals, indicators of progress toward

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140. Bernstein, *supra* note 21. John L. McKnight, Address at Northwestern University Institute for Policy Research Distinguished Policy Lecture (May 29, 2003).

141. Pendergrass, *supra* note 39, at 719.

142. Weiss, *supra* note 30, at 696 (explaining, for example, that there is little urban sprawl around Portland, Oregon, because of a state law that requires cooperative land use planning among municipalities and that a state mandated tax-sharing system has led to a four-fold decrease in property value disparity in the Minneapolis-St. Paul area).

143. Weiss, *supra* note 30, at 697.

144. *See, e.g.,* Amanda Seik, *Comment, Smart Cities: A Detailed Look at Land Use Planning Techniques that are Aimed at Promoting Both Energy and Environmental Conservation,* 7 ALB. L. ENVTL. OUTLOOK 45, 53–54 (2002) (explaining and citing examples, including that of Montgomery County, Maryland). *See also* THOMAS HYLTON, SAVE OUR LAND, SAVE OUR TOWNS (2000) (arguing that mixed-use zoning would help restore communities in Pennsylvania).

145. Salkin, *supra* note 84, at 382–83.

those goals, and legal and institutional mechanisms for achieving them. Some executive-level entity should be responsible for coordinating its development and implementation. In addition, it would be helpful if Congress had a counterpart entity to ensure that both legislation and appropriations fostered sustainable development, including sustainable communities.[146] Among other things, these entities should be used to provide conditional funding mechanisms to provide incentives for municipalities to cooperate and grow smartly.[147]

The federal role in metropolitan governance deserves special attention.[148] Eight out of ten Americans now reside in the nearly 300 federally defined metropolitan areas. Together, these regions produce more than 85 percent of the nation's economic output; they also generate 84 percent of America's jobs. Implementation of much of the ISTEA and TEA21 apparatus occurs at the metropolitan level by metropolitan planning organizations. There is much room for improvement in this mechanism,[149] but it is a major part of the landscape that was put into place under ISTEA and there is no evidence it will disappear. Quite the contrary, there is considerable support for an "ISTEA for water infrastructure" and another for "regional workforce development initiatives." The post-September 11 state financial crisis has exposed some advantages of devolving authority to the metropolitan level. Authorizing committees in Congress and their key constituents should strongly consider adopting a metropolitan policy for programs under their respective jurisdictions.[150]

B. *Issue-Specific Recommendations*

In addition to broad and strategic efforts toward sustainability, progress is needed on a number of specific issues. These issues should not be addressed in isolation from one another, because they are interrelated. In many cases, properly designed policies to address one of these issues can also help address others.

Brownfields Redevelopment. States should modify their programs in three ways to make them more consistent with sustainable development. First, a higher level of government oversight is needed to ensure

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146. Dernbach, *supra* note 48, at 739–42.
147. Salkin, *supra* note 84, at 383–384.
148. Scott Bernstein & Bruce Katz, *The New Metropolitan Agenda,* 16 BROOKINGS REV. (Fall 1998), *available at* http://www.brookings.edu/dybdocroot/press/REVIEW/fa98/katz.pdf.
149. *Id.*
150. JOHN DeWITT, BUILDING STRONGER COMMUNITIES AND REGIONS: CAN THE FEDERAL GOVERNMENT HELP? (National Acad. for Pub. Admin. 1998).

early, simultaneous, and coordinated consideration of social, environmental, and economic goals. There is typically no comprehensive review of the project and little if any supervision of the cleanup process. States should modify their laws to provide for state oversight throughout the process.[151] Second, a shortcoming of virtually every brownfields program is the relative lack of concern for future generations. State and federal programs define success in terms of short-term results based on specific uses that could change over time or with future ownership. States should modify their laws to guarantee long-term protection of sites where remediation has taken place.[152]

Third, there is relatively little opportunity for public participation in the cleanup process. Public participation is especially important because many brownfield sites are located in neighborhoods with higher than average concentrations of persons of color and other minorities. Public involvement helps ensure equity in the decision-making process and helps ensure consistency between community plans and developer plans. States should therefore require full and active citizen participation throughout the revitalization process.[153]

Public Participation. Municipalities that have not already done so should adopt indicators of sustainability and make them publicly available on a regular basis.[154] Municipalities can do this whether or not they decide to adopt Local Agenda 21 plans or other sustainable development strategies. To help ensure public acceptance and to enhance public visibility, these indicators should be developed through an intensive process of citizen participation. More generally, communities should consider other actions that would have the effect of fostering contact and interaction among community members on a regular basis. Such actions could include the creation or improvement of parks or other public space as well as the modification of land use and zoning laws to encourage compatible mixed-uses.[155]

Land Use. Sustainable land use will require continued leadership for and interest in meaningful land use reforms. While the "smart growth" agenda has been on the political radar screen longer than any previous land use reform effort, a major challenge is keeping it there.[156] States need to foster "a new culture of cooperative and intergovernmental

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151. Eisen, *supra* note 54, at 462–63.
152. Eisen, *supra* note 54, at 463.
153. Eisen, *supra* note 54, at 463–65.
154. *Cf.* Irwin & Bruch, *supra* note 62, at 532–33 (making same recommendation for the United States).
155. *See* HYLTON, *supra* note 144, at 22, 82.
156. Salkin, *supra* note 84, at 382.

decision making" at the local level by funding municipalities that work with each other on specific issues. States should also designate a "sustainable development coordinator" to ensure consistent decision-making among state agencies on environmental protection and community development. In addition, states should begin implementing the many "smart growth" recommendations that their own task forces have recommended.[157] Both state and federal governments should target spending on "initiatives and programs that promote urban renewal and infill," and thus revitalize our cities. The federal government should also modify existing programs so that, where state and local participation is optional, access to federal money is conditioned on implementation of land use plans.[158]

Transportation. To move the United States to an effective course for sustainability in transportation, Congress and the federal agencies must build upon the policy reforms of the 1990s. The first step is to recognize clearly that,

> travel choices available to most Americans have been sharply curtailed by past policies, from high subsidies to housing to tax polices and zoning laws, that have made it unattractive or impossible to choose more sustainable options such as walking, cycling, riding transit, living close to our jobs, and driving smaller, more efficient motor vehicles.[159]

Only one trip out of five taken by American households is for the journey to work; the rest are for shopping, school, recreation, and social visits.[160] Reducing the environmental impact of transportation is less about technological improvement than it is about reducing travel demand. A significant improvement would occur if grocery stores were within walking distance of all households. In addition, we can double end use fuel efficiency per person by doubling average vehicle occupancy or by doubling fuel efficiency; the effect is roughly the same. Recognizing this could profoundly change the debate over environmental protection. Much of the opposition to environmental protection comes from conservatives who believe that environmental protection inevitably requires more government regulation and less freedom. Yet

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157. Salkin, *supra* note 84, at 382–83. Among other things, the recommendations include: (1) establishing local priorities through visioning, (2) identifying funding for future growth, (3) utilizing universities, businesses and nonprofit organizations to foster community involvement and to develop implementation plans, (4) creating interagency groups to give advice about growth and land use to local governments, (5) streamlining state grant application processes, (6) providing grants for comprehensive plans and innovative projects. Salkin, *supra* note 84, at 387, tbl. 2.

158. Salkin, *supra* note 84, at 383–84.

159. Benfield & Replogle, *supra* note 86, at 661.

160. Bernstein & Mooney-Bullock, *supra* note 101.

congressional transportation reforms of the 1990s have not been able to overcome all of the other laws and policies that lead away from sustainability in transportation. Removal or modification of these other laws and policies would give people more choice and freedom, not less.

Another step is to establish and work toward specific transportation goals, such as increased energy efficiency, equal accessibility to jobs, and a safe walking route to school for each child.[161] The United States should also adopt policy measures that would reduce demand for motorized transportation, give commuters transportation choices as part of their workplace benefits, encourage the use of highway-pricing mechanisms that do not use toll booths, encourage pay-as-you-drive auto insurance, enable greater use of walking and bicycling, provide greater incentives for affordable housing near employment and transit centers, and require cars to have greater fuel economy.[162] The pending reauthorization of TEA21 offers opportunities to pursue these kinds of innovations, and recent proposals have been made to Congress to do just that.[163] In addition, this session of Congress will simultaneously consider the reauthorization of the nation's aviation (Air21), surface transportation (TEA21) and rail statutes, possibly the only time in history that this has occurred. Approximately 40 percent of the annual $1.6 trillion total transportation tab is for inter-city movements, for which we have no specific policy. New initiatives to address this glaring gap have recently formed.[164] A common theme to these proposals is the development of real-time information tools that can help community leaders and policymakers develop plans commensurate with the challenge at hand.

Housing. Decision-makers at all levels need to recognize that we can do more for both housing quality and environmental protection "by addressing existing buildings and communities than by setting standards for new ones alone."[165] Raw materials use in the United States has risen greatly since World War II; the largest single component of that increase is construction materials, including concrete, whose use requires enormous energy.[166] The annual demolition of perhaps half a

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161. Bernstein & Mooney-Bullock, *supra* note 101.

162. Bernstein & Mooney-Bullock, *supra* note 101, at 661–65.

163. *See Latest Reauthorization News and Information, available at* http://www.transact.org (citing various proposals and tracking testimony).

164. *See Center for Transit-Oriented Development, available at* http://www.reconnectingamerica.org.

165. Bernstein, *supra* note 93.

166. Amit Kapur & Thomas E. Graedel, *Production and Consumption of Materials, in* STUMBLING TOWARD SUSTAINABILITY 63, 66 (John C. Dernbach ed., 2002).

million housing units not only wastes the energy and perhaps the materials that went into building them; it also means that more materials and more energy are required to build new dwellings. Interestingly, communities that have historic preservation policies also evidence stronger support for keeping existing housing stock.[167] Tax incentives for preservation and use of existing structures would be helpful;[168] so would replacement of the home mortgage interest deduction with carefully crafted tax code alternatives that encourage home ownership but do not encourage sprawl.[169]

It is also important to ensure the affordability of housing. Of the 3,000 or so counties in the United States one-third developed more housing than there was demand for, and one-third had more demand than there was available housing.[170] Overall, throughout the 1990s, household growth exceeded growth in available housing by more than 10 percent, and the areas of greatest demand were mostly in counties that anchored America's metropolitan areas. As a result of this tight demand, affordability has by some measures become the top priority for state and local policymakers. In the nine-county San Francisco Bay Area, just 21 percent of households could afford to become homeowners today.[171]

In addition, the financial services industry has started to experiment with new types of mortgage products that credit the transportation accessibility of housing. The first of these was the Location Efficient Mortgage or LEM®, which counts transportation savings from access to amenities, density and mass transit, and is available in Chicago, San Francisco, and Seattle. A second is the "Take the T Home Mortgage," which does the same thing in Boston. A third the Smart Commute Mortgage, which offers a more limited benefit, is available in Pittsburgh and Minneapolis. There is also a small experiment with "Walk to Work" mortgages, and several hundred universities offer mortgage assistance to employees who purchase homes within walking distance. Efforts should be made to grow these experiments to a significant scale; Congress should review these efforts for their universal applicability in its

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167. Bernstein, *supra* note 93.

168. *See* Roberta F. Mann, *Tax Incentives for Historic Preservation: An Antidote to Sprawl?,* 8 WIDENER L. SYMP. J. 207 (2002).

169. *See, e.g.,* Mann, *Hidden Costs, supra* note 46, at 1393–96 (advocating a shelter tax credit as alternative to a mortgage interest deduction).

170. Scott Bernstein & Robert Soden, Analysis of Census of Construction and Census 2000 data (unpublished manuscript on file with author).

171. Peter Plastrik, *The Bay Area Family of Funds: The Art of Double Bottom Line Investing for Regional Sustainable Development,* BROOKINGS REV. (forthcoming 2003).

annual performance reviews of the Department of Housing and Urban Development under the Government Results and Performance Act, and regulators should promote this kind of innovation systematically.[172]

Continuing reform of the rules that govern public accounting will lead to improved financial services products. Two years ago, who could have imagined that accounting rules would be the central focus of congressional attention? In the post-Enron, post-September 11 era, resource constraints have become painfully obvious. The Government Accounting Standards Board, sister organization to the better-known Financial Accounting Standards Board, now requires that all 90,000 units of state and local government account for the condition and remaining life of their major capital assets, including infrastructure. This is life-cycle accounting and includes requirements to disclose the adequacy with which annual and long-range budgets compensate for depreciation and to consider the use of best practices for meeting these needs. This latter requirement can include the use of innovative "green" infrastructure for meeting these needs.[173] At least one major bond-rating agency has offered credit for early adopters of these new standards. Use of these techniques can encourage smarter development patterns, reduce the cost of borrowing, and reduce local taxation. Congress should strongly consider cost-sharing to accelerate the adoption of these new accounting and disclosure standards. In addition, state and local government should work cooperatively with Wall Street to build the necessary financing tools and institutions to support this kind of adaptation.

Finally, we need to reconsider what it will take to accommodate a population that is growing, growing older, and changing demographically. Historians such as Kenneth Jackson, John Stilgoe, and Sam Bass Warner point out that railroad and streetcar suburbs produced exclusive enclaves at an appropriate scale: "affordable housing for the common man."[174] America's population is projected to grow by 76 million persons between 2000 and 2030; with current demographic characteristics, this could require 38 million more homes and an additional 22 million

172. Bernstein & Mooney-Bullock, *supra* note 101.

173. GOV'T ACCOUNTING STANDARDS BD. Statement 34 (1999), *available at* www.gasb.org (to obtain information on using green infrastructure to meet these requirements, contact Karen Hobbs, *Karen@cnt.org*).

174. KENNETH T. JACKSON, THE CRABGRASS FRONTIER: THE SUBURBANIZATION OF THE UNITED STATES (Oxford University Press 1985); JOHN R. STILGOE. BORDERLAND: ORIGINS OF THE AMERICAN SUBURBS 1820–1939 (Yale University Press 1988); SAM BASS WARNER, JR., STREETCAR SUBURBS: THE PROCESS OF GROWTH IN BOSTON 1870–1900. (Harvard University Press 1978).

dwellings to replace the likely loss of current housing stock. If we continue to produce housing in the pattern experienced from 1982 to 1997, we can expect to consume another 50 million acres of land for development.[175] If the kinds of incentives that flow from these recommendations were made available, it is theoretically possible to geographically deploy our new housing much more efficiently. By defining transit-oriented development as consisting of high-density communities within one-half mile of mass transit nodes surrounded by medium density communities within three miles, the projected population could be accommodated within less than 3,700 such communities. This would require just 9.3 million acres of developed land, and much of it would occur on redeveloped land.

The wealth effects of this level of efficiency are significant. The resulting transportation savings could be applied to home ownership and increase the home ownership rate by five to ten percentage points. The savings due to avoided infrastructure costs would be measurable in the trillions of dollars, and disposable income for the lowest three income quintiles could rise by 5 to 12 percent.[176] These accomplishments would be in addition to those that could be scored in terms of clean air, clean water, and ecological health.

Achieving these goals requires that the economic benefits of sustainable development become every bit as important as its environmental achievements. By increasing the efficiency of real estate development, a sustainable community strategy can increase the total "pie" sufficiently to attack poverty. An omnibus recommendation is therefore to make disclosure of the economic effects of such environmental improvements a mandatory requirement for all federal policies.

Public Health Services. The United States should strengthen relatively weak local and state health departments by providing federal standard setting, funding, and oversight of those departments. In addition, a national civil service system for public health professionals would protect those professionals and enable them to do their jobs with less political interference.[177] The United States also needs to fund proper post-mortem examination procedures to diagnose every death from a communicable disease.[178] Finally, if the United States is not

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175. Scott Bernstein, *The New Transit Town: Great Places and Great Nodes That Work for Everyone, in* THE NEW TRANSIT TOWN (Hank Ditmar & Glorida Ohland eds.) (forthcoming December 2003).

176. Bernstein, *supra* note 175.

177. Richards, *supra* note 116, at 679.

178. Richards, *supra* note 116, at 679–80.

willing to provide universal health insurance, it should at least provide "education and support to improve health habits such as better nutrition, exercise, and the cessation of dangerous habits such as smoking."[179]

Education. To make significant progress on sustainability education at the K-12 level, schools need to ensure that teachers understand sustainability. Furthermore, statewide assessments of student learning should be modified to reflect this goal.[180] These efforts should also connect students with work being done in the community to foster sustainability.[181] For higher education, colleges and institutions should commit themselves to "steady reform in teaching, research, faculty and staff hiring and development, operations, student opportunities, outreach, and mission and structure."[182] In addition, those associated with colleges and universities (alumni, funders, and employers) should persuade these institutions to put a greater focus on sustainability.[183] One result of such changes should be more involvement and assistance by institutions of higher education in efforts to achieve community sustainability.

V. Conclusion

Sustainable development can and should be the organizing principle for improving quality of life and opportunity in our communities. It integrates traditional economic development and social well-being with environmental protection and restoration, and it makes particular sense at the community level because the relationships among these objectives are most obvious there. In addition, as this article has indicated, sustainable development is not another name for environmental regulation. Rather, it is a way of setting and achieving environmental, social, and economic goals at the same time, using all appropriate legal and policy tools.

Sustainability efforts in the United States made some headway in the last decade, but much more work lies ahead. Communities that are considering such efforts have a wealth of experience on which to draw; the resources identified in the Appendix are only the tip of the iceberg. American municipalities that are making efforts toward sustainability are obviously a useful source of information and ideas. But local leaders in the United States have often borrowed ideas and experience from

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179. Richards, *supra* note 116, at 680.
180. Federico et al., *supra* note 128, at 620–21.
181. Federico et al., *supra* note 128, at 622.
182. Calder & Clugston, *supra* note 132, at 642.
183. Calder & Clugston, *supra* note 132, at 644–45.

outside this country to address their own problems, and there is significant experience in other countries on sustainable communities from which to borrow.

Achieving sustainable communities will require social and economic invention as much as political commitment and technological deployment. The ultimate renewable resource in this regard may well be community.

Appendix

Selected Web-Based Resources for Sustainable Communities

The following list of resources gives a glimpse of the considerable information and experience available free of charge on the web concerning sustainable communities. These are also among the most important and useful websites for sustainable communities. For the most part, they are in addition to resources cited in the footnotes. A wealth of web-based information also exists on specific topics relating to sustainable communities as well as the sustainability efforts of individual cities and states.

General Information

Concern, Inc., *Sustainable Communities Network, at* http://www. sustainable.org/ (providing links to resources and information about creating community, smart growth, growing a sustainable economy, protecting natural resources, governing sustainably, and living sustainably).

EcoIQ, *The EcoGateway Link Center, Sustainable and Livable Communities,* at http://www.ecoiq.com/onlineresources/center/sustainable/ communities/index.html (providing links for local government agencies and programs, state and regional agencies and programs, federal agencies and programs, government agencies and programs outside the United States, academic programs, nonprofit organizations, business and professional associations, consultants, the media, web businesses, service providers, materials providers, equipment providers, and builders and retailers, and others).

International City/County Management Association, *Local Government Environmental Assistance Network,* at http://www.lgean.org/ (providing one-stop information clearinghouse on "environmental management, planning, funding and regulatory information for locally elected and appointed government officials, managers and their staff").

International City/County Management Association, *Local Government Environmental Assistance Network: Toolbox,* at http://www.lgean. org/html/toolbox.cfm (providing tools and interactive software to help guide users to fulfill environmental reporting requirements or guide the development of environmental programs).

Minnesota Planning and Minnesota Environmental Quality Board, *From Policy to Reality: Model Ordinances for Sustainable Development* (2000), at http://www.mnplan.state.mn.us/pdf/2000/eqb/ModelOrd Whole.pdf (includes model ordinances addressing: citizen participation, growth management, managing community resources, neighborhood design, infrastructure, resource-efficient buildings, and economic development).

National Council for Science and the Environment, *Recommendations for Achieving Sustainable Communities: Science and Solutions* (2001), at http://www.ncseonline.org/NCSEconference/2001 Conference/report/page.cfm?FID = 1692 (recommendations and case studies).

Sustainable Communities Task Force, President's Council on Sustainable Development, *Sustainable Communities Task Force Report* (1997), at http://clinton4.nara.gov/PCSD/Publications/suscomm/ind_ suscom.html (providing information and recommendations about community capacity building, partnerships for design, economic development and jobs, and safe and healthy communities, as well as extensive appendices with case studies, state profiles, leadership resources, and resources for sustainable development).

U.S. Department of Energy, *Smart Communities Network,* at http://www.sustainable.doe.gov/ (providing links to resources and information about green buildings, green development, land-use planning, disaster planning, community energy, transportation, sustainable business, financing, rural issues, and resource efficiency (for air, water, and materials)).

U.S. Department of Energy, *Smart Communities Network: Green Development Codes/Ordinances,* at http://www.sustainable.doe.gov/ greendev/codes.shtml (providing information and links concerning land use and development planning, solar access protection, agricultural land protection, brownfield development, open space, transfer of development credits, green building, materials and water conservation, and energy efficiency design standards).

U.S. Environmental Protection Agency, *Partners for the Environment,* at http://www.epa.gov/partners (describing EPA's voluntary partnership program, which includes partnerships with state and local governments, and providing links to variety of specific programs).

U.S. Office, International Council for Local Environmental Initiatives, at http://www.iclei.org/us/ (providing information and links con-

cerning upcoming U.S. conferences, Local Agenda 21 efforts in the United States, and ICLEI's Cities for Climate Protection Campaign in the United States).

Financing

U.S. Department of Energy, *Smart Communities Network: Finance and Sustainability,* at http://www.sustainable.doe.gov/financing/intro. shtml (providing regularly updated extensive list of funding opportunities, including resources and information about financial strategies and grants as well as specific funding opportunities for energy, green buildings, real estate, agriculture, brownfields, business/industry, community development, pollution prevention, environmental protection, and transportation).

    U.S. Department of Energy, *Smart Communities Network: Green Development Financing,* at http://www.sustainable.doe.gov/greendev/ finance.shtml (providing extensive list of links to more resources and information about funding institutions, publications and tools, real estate development, and various articles about green financing).

International Information that includes United States

Canadian International Development Agency, *Sustainable Development Gateway: Communities and Society,* at http://sdgateway.net/ topics/74.htm (providing online access to hundreds of documents as well as links to various organizations).

    International Council for Local Environmental Initiatives, at http:// www.iclei.org./ (providing extensive information and links concerning, among other things, local Agenda 21 initiatives and planning information, recently published documents, and upcoming conference and events).

    International Institute for Sustainable Development, *Communities and Livelihoods,* at http://www.iisd.org/communities.htm (providing a variety of community-based tools, resources and documents related to community sustainable development, including information and links concerning IISD programs on sustainable communities and livelihoods as well as relevant research and analysis).

    Regional Environmental Center for Eastern and Central Europe, *Sustainable Cities: Environmentally Sustainable Urban Development,* at http://www.rec.org/REC/Programs/SustainableCities/ (providing information and links on the definition of a sustainable city, advantages and barriers to achieving sustainability, and successful initiatives).