



Sustainability at State and Local Levels in the United States

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Meeting the Future: A Research Agenda for
Sustainability

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Overview

- ◆ Status Report:
 - United States
 - States
 - Localities
- ◆ Research Needs & Activities



Themes

- ◆ Sustainable development: a destination, not a journey.
- ◆ Integrated decision making
- ◆ Needs:
 - Goals
 - Sense of urgency



STATUS REPORT: UNITED STATES

- ◆ U.S. provides context for state and local efforts within U.S.
- ◆ Two story lines:
 - 1. Environmental law. Air and water cleaner, waste is better managed, economy has grown
 - 2. Sustainable development.
 - ◆ Framework for all issues, not an issue
 - ◆ Raises other issues—e.g., climate change, biodiversity, consumption, population



Sustainability Assessment

- ◆ STUMBLING TOWARD SUSTAINABILITY
(Environmental Law Institute, John C. Dernbach, ed., 2002)
- ◆ Assessment of U.S. sustainable development efforts since Rio (1992), and recommendations for next 5-10 years
- ◆ 42 contributors from universities, law schools, nongovernmental organizations, state government, and private sector



32 Chapters + Synthesis

- ◆ Consumption and Population
- ◆ Trade, Private Finance, and ODA
- ◆ Natural Resources and Environment
- ◆ Pollution and Toxics
- ◆ Nongovernmental Actors
- ◆ Education
- ◆ Institutions and Infrastructure
- ◆ Governance



A LITTLE GOOD NEWS

- ◆ Success stories
- ◆ Recommendations of President's Council on Sustainable Development
- ◆ U.S. leadership on some international issues
- ◆ Better information



BAD NEWS: Consumption and Population

- ◆ In 1992, U.S. was largest producer and consumer in history
- ◆ In past decade:
 - Natural resources used—up 10%
 - Primary energy consumption—up 20%
 - Greenhouse gas emissions—up 13.6%
 - Population—up 13.2%



Impacts are Far Reaching

- ◆ Efficiency/protection gains outweighed by consumption and population increases
 - Energy
 - Municipal solid waste
 - Air quality
 - Coastal zones



Law Encourages Unsustainable Development

- ◆ Subsidies
- ◆ Grandfather provisions for existing facilities and activities
- ◆ Fragmented local decision making



Consequences

- ◆ Environmental law vs. anti-environmental law
- ◆ Must recognize and address forms of law other than regulation
- ◆ More environmental protection does not necessarily mean more regulation or less freedom



Environment

- ◆ Relatively little change in basic laws (except habitat conservation plans, national forests)
- ◆ Very modest improvements in some environmental conditions, and worsening in others



Strategic Thinking and Action

- ✦ U.S. has no national strategy for sustainable development
- ✦ U.S. does not use sustainable development indicators



International Efforts

- ✦ U.S. is not a party to many treaties intended to foster sustainable development in specific contexts
- ✦ U.S. official development assistance declined after 1992, but is now growing
- ✦ U.S. trade policy has tended to ignore development needs of developing countries



STATUS REPORT: STATES

- ◆ Opportunity: More efficient/effective way to protect public health, safety and welfare.
- ◆ States as “little laboratories” for sustainability
- ◆ Real but modest progress toward sustainable states



Challenges

- ◆ Committed gubernatorial leadership
- ◆ Fragmented decision making across state agencies
- ◆ Lack of capacity
- ◆ Lack of federal leadership



Some States are Leaders

- ◆ Strategic planning
 - E.g., Minnesota, Oregon, New Jersey
- ◆ Sustainable development indicators
 - E.g., Maryland, Minnesota, Oregon
- ◆ Executive Orders
 - E.g., Massachusetts, Oregon, Pennsylvania, Washington



Brownfields

- ✦ Objective: land redevelopment that also results in environmental cleanup
- ✦ Virtually all states created brownfield programs in 1990s
- ✦ Pennsylvania is now coupling brownfield cleanup with state assistance to many redevelopment projects



Municipal Waste Recycling

- ◆ Many state laws support and encourage recycling of paper, cans, bottles, etc.
- ◆ Recycling rates have increased significantly
- ◆ Recycling creates jobs, attracts economic development; better for these purposes than landfilling or incineration
- ◆ Per capita disposal rate greater now than ever



Electricity

- ✦ Many states have laws requiring certain amount of electricity to come from renewable or alternative energy sources
- ✦ Justifications: job creation, technology development, reduce conventional and greenhouse gas pollutants, diversification of electricity supply



Climate Change

- ✦ States becoming more active every year in addressing climate change
- ✦ Activities becoming more regional (RGGI, Pacific coast)
- ✦ Level of technical analysis and modeling becoming more sophisticated
- ✦ Plans focus on multiple actions coupled with monitoring and reporting



STATUS REPORT: LOCALITIES

- ◆ Opportunity—sustainability most easily understood, seen, and experienced in specific place
- ◆ Real but modest progress toward sustainable communities
- ◆ Challenges—
 - Fragmentation
 - Lack of Capacity
 - State property tax laws



Sustainable Development Planning and Indicators

- ◆ 78 municipalities have local Agenda 21 plans
- ◆ Other municipalities have sustainable development planning efforts, but do not refer to Agenda 21
- ◆ 87 municipalities have sustainable development indicators



Leading municipalities include:

- ◆ Austin, Texas
- ◆ Boulder, Colorado
- ◆ Chattanooga, Tennessee
- ◆ Jacksonville, Florida
- ◆ Portland Oregon
- ◆ Santa Monica, California
- ◆ San Francisco, California
- ◆ Seattle, Washington



Sprawl

- ✦ Environmental costs: land conversion, loss of biodiversity
- ✦ Economic costs: infrastructure, loss of farmland, higher taxes in core communities
- ✦ Social costs: damage to communities, time spent commuting



Transportation

- ◆ Between 1995 and 2000, transit use grew 21% while driving increased only 11%
- ◆ Between 1990 and 1998, vehicle miles traveled grew from 2 to 2.6 trillion miles
- ◆ Largest single use of credit by households is for auto finance. Largest reason for denial of credit to potential first time home buyers is excessive use of consumer credit.

Thus, amount of household resources tied up in auto ownership may be largest limiting factor in home ownership.



Housing

- ✦ 1.2-1.6 million housing units constructed annually between 1992 and 2001
- ✦ 245,000-600,000 housing units demolished annually
- ✦ Between 2000 and 2030, 800,000 new households expected in Chicago. Building for these households in existing footprint could save \$40 billion



RESEARCH NEEDS & ACTIVITIES



Performance measures and goals

- ◆ For planning, budgeting, and public reporting
- ◆ Requires adoption of targets (or levels of achievement) for future years
- ◆ Requires understanding of relationship between specific actions and specific outcomes
- ◆ Challenges in certain areas (e.g., watershed restoration)



Understanding impacts/trends of human activities

- ◆ Cumulative and synergistic risks
- ◆ Ecosystem effects
- ◆ Relationship between social, economic, and environmental factors and trends



Mapping

◆ Use of GIS to:

- See variety of environmental, economic, and social features
- Depict trends
- Assess vulnerabilities
- Project future impacts

◆ Examples:

- REVA
- Resource Lands Assessment



Develop and apply user-friendly scientific tools

- ◆ Predictive tools
- ◆ Sustainable alternatives to conventional technologies



Overcome barriers to diffusion of existing and proven technologies

- ◆ Much proven technology, know-how, and knowledge is not being widely applied
- ◆ Theoretically, barriers to diffusion of innovations are well understood
- ◆ Challenge is to identify and overcome these barriers for each technology



Better understand human nature and sustainability

- ✦ Short term vs. long term thinking
- ✦ Orientation toward consumption
- ✦ Why negative trends are being ignored



The “Great Work” Ahead

- ◆ Next two generations
- ◆ The future is up for grabs



“They gave their today for our tomorrow.”



Who are we, and how do we want to be remembered?

