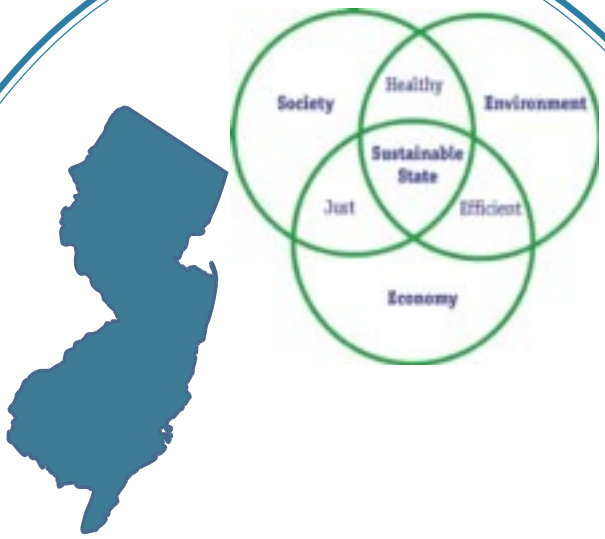
# How to Become an Environmentally Sustainable Community - A Primer




*Creating an environmentally sustainable New Jersey anchored on an active network of communities working for the well-being of the local population and ecosystems both for the present and future generations*

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**How to Become an Environmentally Sustainable Community - A Primer**

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## Introduction

The Department of Environmental Protection (DEP) launched an initiative designed to support and help educate New Jersey communities that would like to become **environmentally sustainable**. DEP's **vision** is a sustainable New Jersey built on a network of environmentally sustainable communities. The initiative's **mission** is to help create that network of environmentally sustainable communities — communities that can persist over generations, enjoying a healthy environment, prosperous economy and vibrant civic life. A sustainable community does not undermine its social or physical systems of support. Rather, it develops in harmony with regional ecological characteristics.

A number of New Jersey municipalities, including Montclair, Highland Park and Belmar, are already engaged in sustainability initiatives. Their noteworthy efforts encouraged DEP to develop this primer to help communities throughout the state follow the pioneering examples of these three towns.

The DEP offers two levels of assistance to communities that are ready to commit to becoming environmentally sustainable. The first level will help communities incorporate the basic tools necessary to implement sustainable environmental practices. The second level will assist communities that have the basic tools in place to further integrate environmental sustainability into their daily operations. For a list of DEP assistance available, please see table 3.

The basic approach of the DEP in implementing the ESC initiative is:

- *helping towns think about sustainability*
- *modeling and demonstrating successful cases*
- *developing an informal process for a strategic partnership with towns committing to an environmentally sustainable path*
- *encouraging the development of community goals that may be based either on the community's wishes or specific technical information*
- *developing indicators to track the progress made toward reaching those goals, and*
- *tailoring support to help individual communities develop and implement their action plans*

Contained in the pages that follow are ideas and information on the concept of sustainability and what needs to be done for a community to move along the path of sustainability.

## What is a Sustainable Community?

Communities around the world, as well as in New Jersey, are beginning to explore what it means to be a sustainable community.[1] This process begins by defining sustainable development.

**Sustainable development** has been defined as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs." The United Nations World Commissionon Environment and Development (The Brundtland Commission, 1987).

By applying the definition above, communities interested in sustainable development identify policies and goals that will strengthen and maintain their natural environment, economy and social well-being.

**Leadership and Vision**
**Highland Park 2020:**
**A Sustainable Community**

*The Highland Park 2020* Plan focuses on the Borough's need to sustain the environment, local economy, and its diverse and changing population. The Plan outlines a series of goals under the following categories:

Environment = A Green Community
Economic = A Livable Community
Social = An Affordable Community

**http://hpboro.com/news_hlp2020_051903.htm**

[1] Community is defined here as municipality, township, borough or city. In certain cases, a country also could be considered a community in the context of the Environmentally Sustainable Communities Initiative.

## A sustainable community is one that:

- **Acknowledges** that economic, environmental and social issues are interrelated and that these issues should be addressed "holistically."
- **Recognizes** the sensitive interface between the natural and built environments.
- **Understands** and begins to shift away from polluting and wasteful practices.
- **Considers** the full environmental, economic and social impacts/ costs of development and community operations.
- **Understands** its natural, cultural, historical and human assets and resources and acts to protect and enhance them.
- **Fosters** multi-stakeholder collaboration and citizen participation.
- **Promotes** resource conservation and pollution prevention.
- **Focuses** on improving community health and quality of life.
- **Acts** to create value-added products and services in the local economy.[2]

## Sustainability and the concept of community capital

A community covers a geographic area and encompasses everything in that area – humans, animals, plants, and resources such as soil, water and air. The definition of a community's assets, or capital, generally includes the financial resources (e.g., money, credit) and the structures (roads, bridges and buildings) in a community. However, sustainability expands this definition to include human/social capital and natural capital. "Social capital" is the process and conditions of social networking among people and organizations that lead to accomplishing a goal of mutual social benefit, usually characterized by trust, cooperation, involvement in the community, and sharing.[3] "Natural capital" is the stock of natural resources and environmental assets and includes water, soils, air, flora, fauna, minerals, and other natural resources. These stocks (e.g., a forest) produce a flow of goods (e.g., trees) and services (e.g., carbon sequestration, erosion control, habitat). [4]

[2] Minnesota Office of Environmental Assistance, www.moea.state.mn.us/sc/sust-def.cfm

[3] www.cdc.gov/healthyplaces/terminology.htm

[4] www.agtrade.org/glossary_search.cfm & www.corusconstruction.com/page_9041.

The financial, social and natural capital of a community are equally important and need to be carefully managed to ensure the community and its quality of life do not deteriorate. In fact, the primary sustainability goal of global planning frameworks (such as The Natural Step[5]) is **no net loss of human or natural capital**. For society as a whole, this goal could be modified to reflect the need to preserve human and natural capital in the face of increasing populations. Thus, the goal as modified is no net loss *per capita* of human or natural capital.

An important measure of environmental sustainability is **carrying capacity**. The carrying capacity of a community is the size of a population that can live indefinitely using the resources available within that community. This limit is not a fixed number but a function of the number of people, the amount of resources each person consumes, and the ability of the environment to assimilate all the wastes produced (Hart Environmental Data, 1998).

Conversely, the community's **ecological footprint** could be determined in terms of land area corresponding to resource consumption and waste assimilation requirements of a given population or economy (see page 21 for complete definition).

Environmental and social sustainability are not traditional economic goals for communities, so they are not directly supported by current markets, except through regulations[6]. The result is that economic development often exploits and diminishes the environment (natural capital) and may negatively affect social welfare (human capital). Undamaged environmental services[7] and natural resources are becoming scarcer. Ecosystems are experiencing serious degradation and therefore will become increasingly unable to provide necessary services. At the same time, the demand for ecosystem services is growing rapidly as populations, developed areas and standards of living increase (see Millennium Ecosystem Assessment, 2003).[8]

This suggests that a community's environment (i.e., natural capital) should be a fundamental focus in the effort to achieve sustainability.

[5] Visit www.naturalstep.org - The Natural Step System Conditions define when a society has achieved sustainability and such definition drives efforts to achieve greater sustainability performance. The framework was developed and is supported by a global network of organizations called The Natural Step.

[6] Regulations can create markets that support environmental and social sustainability, e.g., carbon markets.

[7] Environmental or ecosystem services derived from natural processes or functions (e.g., wildlife habitat, cycling carbon, trapping nutrients) that benefit society (e.g., cleaner water, better views, lower global warming, and 'free' natural pollinators).

[8] Millennium Environmental Assessment, 2003. Ecosystems and Human Well-Being: A Framework for Assessment. Island Press. Washington DC.

From an environmental perspective, **a sustainable community is one that manages its natural resources and environmental assets (natural capital) such that their value is preserved, restored and enhanced for present and future generations; and such stewardship complements the community's efforts to foster economic and social health**. A sustainable community is one in which quality of life and standards of living can improve without impairing the natural systems on which the community depends. This operational definition may serve as basis for drawing up strategies to support sustainability.

## Why become a Sustainable Community?

The following global trends indicate the environment cannot withstand indefinitely our current course of consumption and production. The world's natural resources support all life and are the basis of all production. Continued growth in our consumption of natural resources is inherently unsustainable.

- **Population -** From 1961 to 2001, human population doubled to 6.2 billion. Forecasts show that the Earth's population will grow to 9 billion by 2050.
- **Climate Change -** Although climate change can be a naturally occurring phenomenon, the United Nations Intergovernmental Panel on Climate Change says there is "new and stronger evidence that most of the warming observed over the last 50 years is attributed to human activities." While climate change is not inherently negative, people are not prepared to deal with its likely negative impacts. Globally, climate change may lead to widespread hardship, species loss and sea-level rise.
- **Energy Use –** Current trends indicate increasing global energy use (by about 2 percent per year until 2010, according to some projections). If this global growth rate of primary energy use continues, it will mean a doubling of energy consumption by 2035 (relative to 1998), and a tripling by 2055[9]. The vast majority of this increase will come from nonrenewable resources such as gas, coal and oil that will continue to create emissions that contribute to global climate change and local air-quality problems.

[9] World Energy Assessment, 2000. World Energy Council, United Nations Department of Economic and Social Affairs, and United Nations Development Programme, New York.

- **Ecological Diversity -** In the second half of the 20th century, 300,000 species became extinct. This rate is between 100 and 1,000 times faster than the rate of extinction before humans evolved. This rate of loss in diversity may cause ecological instability and reduce the number of species available for medical, economic or other uses. For example, at least 25 percent of all modern drugs originally came from rainforests, and more than 2,000 plants have been clinically shown to have anti-cancer properties.
- **Economic Activities -** Economic activities producing the global economic output of goods and services use up most of the earth's natural product—mainly plant material. Humans already consume 40 percent of the plant material created each year by photosynthesis. This rate of consumption is expected to increase about 2 percent per year, meaning a doubling in 35 years. Since humans are only one of between 5 and 30 million species dependent on this plant material, the result of another doubling will be ecologically devastating. Such ecological imbalance will be a direct consequence of the quintupling of the global economy's output since 1950.

These indicators reveal worrying trends because the Earth is a finite ecosystem. There are limits to how long we can use nonrenewable resources before the resources are gone. Logic indicates that this lack of balance will cause a collapse of natural and possibly social systems, so it makes sense for us to identify how we might modify our current activities to avoid some of the potential negative consequences of our actions.

## What Are the Benefits of Becoming a Sustainable Community?

Communities benefit when their natural ecosystems (watersheds, coastal fisheries, forests) and social systems (families, neighborhood organizations) are used effectively, efficiently and conservatively. Benefits of following sustainability principles include more livable communities, lower costs and a safe, healthy environment.

To reap these benefits, communities must learn to use renewable resources at rates that do not exceed their capacity to renew themselves and to use nonrenewable resources at rates that do not exceed the capacity to develop or find substitutes. In addition, communities should reduce the use of resources consumed at rates that exceed the capacity of the ecosystem to assimilate or process the waste generated by their use. This also means finding community

cost savings by eliminating waste, enhancing resource and human productivity, and harnessing the economic benefits of innovation (e.g., sustainable business practices).

A key question facing communities today is how to generate future economic benefits using an appropriate balance of both locally available natural capital, and natural capital that must be imported. Because problems of resource overuse can be expensive to fix, it is prudent to anticipate the costs of using natural capital rather than being forced to be in a reactive mode. As an example, an area's ability to develop may be constrained due to a lack of a new drinking water source. Consequently, a municipality may be forced to enact a building moratorium until additional water supply can be secured. Towns must understand their current and projected use of critical resources in order to ensure that their growth objectives are feasible and met. That is, without proper anticipation of problems/impacts, communities will be forced to adopt measures that may be costly in order to achieve both environmental and development objectives. Advanced planning is the key to avoid violating carrying capacity limits.

## Thinking Globally, Acting Locally

Sustainable development is a program needing both local and global action. The growing consensus among experts and organizations working for sustainability is that sustainability must be accomplished at the local level if it is ever to be achieved on a global basis. As individual communities become successfully sustainable, the global community also progresses toward sustainability.

When economic development is community-based, it is more likely to be viable because it: (1) helps keep economic benefits and resources within the community, (i.e., what is earned is put back into the local economy); (2) supports existing local businesses that tend to be more responsive to local needs and more likely to support the community; (3) encourages the establishment of new, locally owned enterprises; (4) seeks small-scale solutions, which are usually faster, more flexible, less expensive, and more manageable than large ones, to economic production problems (5) builds social capital — the capacity of its people to work together for the common good.

**Table 1: Sustainable Community Benefits to Residents**

- Establish and maintain a quality of life based on shared values adopted by the community
- Establish links between issues that often are viewed as separate (i.e., economic development, housing, public safety and transportation)
- Equitable distribution of critical resources and opportunities for the current generation as well as for future generations
- Enhanced quality of life/ improved livability
- Economic development that better supports community infrastructure with quality tax bases* and creates potential for increased community prosperity by providing diverse, high-quality local jobs for a greater portion of the population

* That is, reflecting true costs of community resource use and applying "user pays" principle.

Local government plays a key role in a community's economy. It manages the construction and maintenance of infrastructure that is vital to economic activity. It sets standards, ordinances, tax rates, and fees that affect economic development, and procures large amounts of products and services that can influence these markets. And, like private enterprises, local governments arrange for the production of goods to be sold on the market. These include environmental services (e.g., water, waste management), economic services (e.g., transportation infrastructure), and social services (e.g., health and education).

## Getting Started: How does a Community become a Sustainable Community?

The following questions outline the steps communities should take to establish a sustainability plan. [10]

**Where Are We Now? - Baseline**

**Where Are We Headed? - Trends**

**Where Should We Be Going?**
**- Vision/Sustainability Plan**

**How Do We Make the Vision More Concrete?**
**How Will We Measure Our Progress? -**
**Metrics: Targets & Indicators**

**How Do We Get There? - Action Plan**

**What Do We Need to Get Moving?**
**Are We Moving As Desired? -**
**Implementation / Monitoring & Evaluation**

### 1. Where Are We Now?

In the first step, the community assesses its current situation to establish a baseline using methods[11] such as a community environmental assessment, carrying capacity or ecological footprint analysis, or a sustainability inventory.[12] Ideally, this process should involve every concerned member of the community. The information collected should be mapped or displayed in a manner easily understood by the local population.

[10] The U.S. Environmental Protection Agency's "Green Communities " Program promotes this question-response method to planning sustainability.
Visit http://www.epa.gov/region03/greenkit.

[11] These methods are defined/described in Appendix A: Glossary of Methods.

[12] The International Council for Local Environmental Initiatives (ICLEI) has developed a simple sustainability inventory tool. The tool asks questions about the quality of a community 's natural, social and economic resources including the corresponding management strategies. Visit www.iclei.org

**Leadership and Vision Montclair: Creating a Sustainability Policy & Plan of Action**

On March 18, 2003, the Montclair Township Council unanimously passed a *Resolution Endorsing and Adopting the Policy of Sustainability for Township Decisionmaking, Purchasing and Operations.*

To implement the resolution, the Montclair Environmental Commission prepared the *Sustainable Montclair Planning Guide* to be used as a tool for decisionmaking about the procurement and delivery of public goods and services now and into the future.

**www.mtcenv.com/pdf/sustain-guide.pdf**

## 2. Where Are We Headed?

In the second step, the community takes a look at trends that affect the environment, economy and social fabric of the community. A number of tools (including graphs, tables, maps and illustrations, and public input[13]) can be used to facilitate this trend analysis. The projections of current trends can indicate where the community may be headed in several years. Trends to look at might include (a) socio-economic (e.g., population, employment, housing, income levels) and (b) environmental (e.g., air quality, water quality, acres of wetland lost, industrial discharges).

## 3. Where Should We be Going?

In the third step, the community decides what its future goals are and draws up a formal statement outlining this vision. This sustainability plan expresses commitment, similar to a strategic plan[14] in its scope and contents.

## 4. How Do We Make the Vision More Concrete? How Will We Measure Our Progress?

In the fourth step, the community defines the "metrics" of its desired future including goals, targets/objectives, and indicators to measure milestones. Quantifiable targets should be specified when possible (e.g., measurable targets like a 15% reduction in energy use; reduce solid waste volume by at least 50%). The assessment of progress should be based on a framework that links vision and goals to indicators and assessment criteria. The choice and design of indicators (i.e., measures of conditions that are accepted by a community as valid criteria for evaluating change), their interpretation, and the communication of the results are challenging. A number of key questions have to be considered, including:

[13] Please see EPA Green Communities Web site, www.epa.gov/region03/greenkit.

[14] A tool commonly used in government agencies and private firms. It is a broad, usually long-term and comprehensive set of goals and objectives along with the projected programs, projects, and activities to meet them.

(a) Do you only use existing data or do you try to create new metrics requiring the generation of new data? If new, what are the costs? Are they feasible?

(b) What selection process do you use? — Do you collaborate with grassroots organizations, or, recognizing the complexity of the system and connections you are trying to measure, do you make it a technical effort and rely mainly on technical experts?

## 5. How Do We Get There?

In the fifth step, the community creates an action plan with the specific steps needed to make their vision a reality. It is at this stage that the principles of sustainability must be carefully considered. With detailed and specific information available (from what has been gathered previously in steps 1 & 2 including baseline information, trends, survey data on key issues), the preliminary indicators adopted in step 4 must be refined to reflect the more concrete context and requirements of the action plan. Developing an action plan is not simple, but answering two key questions can help get the process started. First, do you work within the current legal authority or do you seek new laws to provide a wider range of options? Second, who is responsible for implementing the action plan? The planning process involves identification of leaders, stakeholders, resources available as well as resources needed, relevant regulations and any constraints that need to be considered. Coordination between local organizations and institutions is a must in the implementation of the action plan. Responsibilities need to be assigned to key community players both within and outside the government structure.

**Sustainable Living by the Sea: Belmar's Blueprint for Building a Liveable, Affordable and Inclusive Community**

The ultimate goal is to create and maintain a livable, inclusive and affordable community in which all residents can lead enjoyable lives with respect and concern for one another and their natural resources.

**www.belmar.com**

Two primary activities are required for a successful implementation of the action plan (ICLEI, 1996). One, the stakeholders who did the groundwork and developed the plan must convert the organizational structures that they used for planning into organizational structures with specific responsibilities and capabilities for implementation. Two, the local government concerned should incorporate the targets and proposed programs/projects of the action plan

into its own operations, including budget priorities and investments. It is critical to mobilize the institutional capacity of the local government in order to effectively implement the action plan since it is quite usual for volunteer stakeholder participants to reduce their involvement following an extensive community-based planning effort. At the same time, a coordinated or joint implementation effort between the local government and its external stakeholders is essential. Along this line, the following actions need to be taken by the community:

(1) creation of new structures or reform of existing ones to support partnerships for implementation; (2) establishment of a working linkage between the action plan and local government planning; (3) review of existing municipal policies, budget priorities, and internal practices and procedures to ascertain their compatibility with the action plan; (4) monitoring of new municipal policies, decisions, or actions to assure consistency with the action plan; and (5) documentation of actions taken, both by stakeholders and the municipality, to implement the action plan.

## 6. What Do We Need to Get Moving? Are We Moving As Desired?

In the sixth step[15], the community implements the plan it has developed. At this stage, appropriate tools for implementation will need to be identified and deployed. These tools may cover regulation, policy, finance, and technology, which are essential to the successful implementation of the plan. Action needs to be accompanied by monitoring and measurement of progress and should try to answer the question: "is the community progressing as desired?" The use of indicators here is essential to tracking implementation progress and adjusting/ refining the action plan, revisiting the vision, re-assessing the goals and revising targets. An evaluation system with indicators as the primary tool should be woven throughout the implementation phase to provide feedback and enable the community to know whether it is on track or not.

[15] The sixth question combines two steps together, action and monitoring, so adjustments can be made during the implementation phase.

### Table 2: Evaluating a Community's Services* for Sustainability: An Example of What A Sustainability Action Plan Should Address

The service systems of a community, town or city are some key areas that an action plan could target. A given community needs to identify which service areas are critical in terms of their sustainability goals. Examples of these systems are:

- Infrastructure (e.g., public transit systems, sewerage systems);
- Programs (e.g., public safety, health);
- Procedures (e.g., regulatory and development approval processes);
- Management routines (e.g., repeated and continuing activities such as purchasing, waste collection and building inspections); and
- Management interventions (e.g., pollution control).

* Provided primarily by the government of the community

## What Has Been the New Jersey Experience So Far?

So far, New Jersey municipalities choosing to become sustainable communities have approached the process in different ways. The process described here is offered only as a general guide and can be adapted to suit the specific circumstances and needs of each community. However, towns pursuing sustainability can still benefit from seeing how others have approached the process.

The Bureau of Sustainable Communities and Innovative Technologies (BSCIT) has developed community profiles[16] of three New Jersey municipalities — Montclair, Highland Park and Belmar — which have developed vastly different sustainability plans.

[16] Visit www.state.nj.us/dep/dsr/bscit/SustCommunities.htm

**Highland Park** articulated a vision that focused on the long-term care of its environment, local economy, and diverse and changing population. Environmentally sustainable policies and practices embodied in its plan included retrofits to make public buildings more energy and water efficient; green building standards for new major construction; streetscape projects featuring LED traffic signals, recycled-content benches and trash receptacles, high-efficiency lighting; safe walkways and bikeways; green plantings for aesthetic screenings in downtown areas; state-of-the-art pervious surfacing, heat-mitigating vegetation in parking lots, and the construction of a solar-powered environmental center for public education.

Highland Park sees itself not only as environmentally green but also as an economically and socially sustainable community. Economically, it plans to overcome the property tax burden by pursuing an aggressive revitalization and redevelopment based on smart-growth principles. Socially, its goals include creating a community that is welcoming, understanding and accessible to everyone by conducting activities such as annual unity fests and promoting arts that reflect the cultural diversity of its population.

**Montclair** has followed a more institutionalized approach by adopting a local government resolution with a policy of sustainability for township decision-making, purchasing and operations. To implement this policy, it developed a sustainable township planning guide, a collection of voluntary, cost-effective strategies that the town can implement both immediately and over time. These include an energy audit of buildings and operations; increased purchasing of alternative fuel vehicles (AFVs); environmentally preferable purchasing (recycled products); education on and enforcement of recycling laws; integrated pesticide management in schools and on playing fields; study of long-term water-supply and waste-disposal options and key environmental ordinances (wellhead protection, shade trees and noise control); designation of bicycle lanes; township brownfields inventory; and improved coordination between the township's planning board and environmental commission.

The township also has put into practical effect sustainability-oriented programs and projects in the following areas: energy (purchase of compressed natural gas cars; installation of LED traffic lights; solar roof panels for municipal and school buildings; changeover to biodiesel-fueled municipal truck fleet); expanded and improved solid waste recycling program; environmentally preferable purchasing of products; stormwater-management education

(stream clean-up, storm-drain stenciling); bicycle and pedestrian planning; farmers' market (fresh produce for consumers, family-farm protection, reduced energy use in food transport); code enforcement of environmental ordinances (e.g., recycling, noise controls for gasoline-powered leaf-blowers); and reorganization of local government operations to include a new division of administration, code enforcement, and environmental affairs in the township.

**Belmar** has deliberately based its sustainability strategy on careful consideration of its specific challenges and advantages (e.g., being a coastal town and a high-profile community). Its vision of sustainability is based on building a livable, affordable and inclusive community. The plan it developed has a four-fold objective: (1) use of smart-growth strategies, (2) incorporation of design planning geared to a more enjoyable community less dependent on cars, (3) promotion of development that relieves tax burden on residents and enables them to work and shop in town, and (4) reinforcement of town's sense of community and encouragement of social sustainability.

The specific plan elements include the following: preserving and enhancing the strong sense of community (quality-of-life laws and housing codes, restoration of owner-occupied housing neighborhoods, broad range of recreational programs, independent and affordable lifestyle for seniors, cultural enrichment through the newly formed arts council); incorporating smart-growth policies into redevelopment plans (quality mixed-use development, public spaces to encourage walking and community events); commitment to clean water and a quality environment (improved quality of stormwater runoff, long-term environmental design measures such as parking to improve stormwater quality and cleanup of contaminated sites, no-discharge zone designation in river); affordable and inclusive housing (incorporating upper-story, affordable and sustainable housing into mixed-use redevelopment, exploring creation of accessory dwelling use zoning law, integrating renewable-energy technology where practicable); energy conservation and renewable energy use (LEED-certified new municipal buildings, alternative energy design elements in all future municipal buildings, use of biodiesel in truck fleet); transportation and mobility (commitment to safe pedestrian walkways, program for use of neighborhood electric vehicles); and community consensus, education and leadership.

A distinct feature of Belmar's strategy is the promotion of plan objectives and measurement of progress. This essentially involves awareness creation, i.e., conducting regular public forums to engage the residents in a discussion of the plan objectives and the progress being made toward their achievement.

## Some Lessons

The following lessons can be derived from the experience of the communities in New Jersey and elsewhere that have undergone some kind of sustainability planning and implementation:

- It will be difficult for sustainability to be addressed in a thorough way if a community does not have the capacity to engage a diverse and representative set of stakeholders (i.e., key groups within the community but could also include outside groups with an interest or "stake" in the community's affairs, e.g., businesses, federal agencies, NGOs)
- A community must be willing to address issues of long-term sustainability, and should be prepared to engage in a dialogue on these issues over the long haul. The process is not a one-shot event.
- Framing a long-term vision is difficult unless narrow self-interests are subordinated for the sake of a broader purpose.
- The process works best if the local residents are in control of the process, getting professional and expert help only when needed.

**Table 3: Assistance from the NJ DEP Environmental Sustainability Initiative**

***Information***

- Database – sustainability efforts in NJ/US/ Internationally
- Benchmarking – tracking successful examples of community-based environmentally sustainable efforts as basis for sustainability standards setting
- Library – relevant references and source materials

***Technical Assistance to the Community***

- Publications
  *A Guide to State Grants and Loans that Support Sustainability Initiatives*
  *Green Purchasing: A Guide for Local Governments and Communities*
- Resource Guide (web sites, documents, etc.)
- Specific staff help

# Appendix A: Helpful Web Sites*

## International Council for Local Environmental Initiatives (ICLEI) www.iclei.org

This Web site contains newsletters, case studies, and a variety of technical manuals on topics ranging from financing energy efficiency projects to solid waste management to the use of economic instruments to improve environmental performance.

ICLEI's mission is to build and serve a worldwide movement of local governments to achieve tangible improvements in global sustainability with special focus on environmental conditions through cumulative local actions. The council is a membership association of cities, towns, counties, metropolitan governments, and local government associations. It serves as an information clearinghouse on local government initiatives.

## International Institute for Sustainable Development (IISD) www.iisd.org/measure/compendium

This site contains the compendium of sustainable development indicator initiatives, a worldwide directory of who is doing what in the field of sustainability indicators. The IISD's mission is to contribute to sustainable development by advancing policy recommendations on natural resources management, economic policy, international trade and investment, climate change, and measurement and indicators hosts this directory.

## International Sustainability Indicators Network (ISIN) www.sustainabilityindicators.org

The ISIN provides people working on sustainability indicators with a method of communicating with and learning from each other. This Web site contains news on the activities of the ISIN and has links to various Internet resources on sustainability indicators.

### New Jersey Sustainable State Institute (NJSSI)
### www.njssi.net

The NJSSI is an independent agency that works with government, public interest groups, business leaders, and citizens to identify goals, indicators and targets for the future of New Jersey. The web site contains the recent report (2004) *Living with the Future in Mind: Goals and Indicators for New Jersey's Quality of Life*.

### Sustainable Communities Network (SCN)
### www.sustainable.org/

The SCN identifies quality resources on sustainability and disseminates them in a timely way to the public. The SCN web site contains information resources including case studies on community initiatives toward sustainability. These are organized along the following themes: creating community, smart growth, growing a sustainable economy, protecting natural resources, governing sustainably, and living sustainably.

### Sustainable Measures (SM)
### www.sustainablemeasures.com/

SM works with communities, companies, regional organizations, and government agencies at all levels to develop indicators that measure progress toward a sustainable economy, society and environment. The web site offers free training materials, a database of indicators, an explanation of indicators and sustainability, and a list of online and print resources.

### The Natural Step
### www.naturalstep.org

The Natural Step (TNS) is a global network of organizations. TNS engages with business to integrate sustainability principles into their core strategies, decisions, and operations. The Web site contains information on services, research, and education activities of TNS.

### The Sustainability Institute
### www.sustainer.org

The Institute was founded in 1996 to apply systems thinking and organizational learning to economic, environmental, and social challenges. The Web site contains useful tools and resources to help put the principles of sustainability into practice.

### US Department of Energy, Smart Communities Network
### www.sustainable.doe.gov/

This Web site includes an overview of sustainability and information on the following topics: green buildings, green development, land-use planning, measuring progress, disaster planning, community energy, transportation, sustainable business, financing, rural issues, and resource efficiency (air, water, materials).

### US Environmental Protection Agency – Green Communities
### http://www.epa.gov/greenkit/

This Web site provides information on the Five Steps to Community Sustainability, sustainability tools, and green programs (green business, building green, and greener fleets).

### US Environmental Protection Agency – Sustainability
### www.epa.gov/sustainability/

This Web site provides links to many US EPA programs and tools that contribute to sustainability. Three main areas are covered: planning and practices, scientific tools and technology, and measuring progress.

* This represents only a small sample of the variety of resources available online. The ESC will be preparing a comprehensive compilation of additional useful Web sites and other resources. The information will be made available through the BSCIT homepage located on the DEP website.

# Appendix B:

## Glossary of Selected Methods for Sustainability Planning and Assessment

This glossary contains concise definitions/descriptions of some methods and tools that can be adapted for assessment and planning for sustainability. The definitions here are relevant to small communities striving to achieve sustainability.

**Community Case Studies** - Collective descriptions and analyses of communities, their problems and their approach to/experience with sustainability issues. Case studies can be used to promote awareness and discussion among community members, and to gather baseline information for assessment.

Reference: *Strategies for National Sustainable Development: A Handbook for their Planning and Implementation*. 1994. International Institute for Environment and Development (IIED), London, United Kingdom.

**Community Environmental Assessment** – A tool that can be used to involve stakeholders in gathering information and analyzing the environmental and social impacts of planned activities in order to predict, as far as possible, the various positive and negative effects proposed activities may have. This tool is designed for group observation and value judgement. The importance of any impact is determined by the community and given numerical value. While the scores are not that useful in and of themselves, a comparison of the ratings for a number of impacts can indicate the relative importance of different factors. This tool can be used to facilitate priority setting as well as to identify indicators for monitoring and evaluation.

Reference: *Community Environmental Health Assessment Workbook*. 2000. Environmental Law Institute, Washington, DC.
Visit: www.eli.org/pdf/commhealthassessment.pdf.

**Comparative Risk Assessment** – A systematic method for ranking and prioritizing environmental problems based on the severity of hazards to human health, ecology, and quality of life. Comparative risk projects identify a range of environmental problem areas, analyze them, and rank them according to their risk. The method usually involves both a technical and public advisory component to assure a balance between scientific and socio-economic information and public values. When combined with management issues such as cost, political feasibility, and ease of implementation, comparative risk-based strategic planning integrates the concerns of the public, environmental groups, industry, and government agencies.

Reference: *A Guidebook to Comparative Risk Assessment and Setting Environmental Priorities*. 1993. USEPA. Washington, D.C.

*New Jersey Comparative Risk Project Report.* 2003. Division of Science, Research & Technology/NJ Department of Environmental Protection. Trenton, NJ. Visit: www.state.us.nj/dep/dsr/njcrp

**Ecological Footprint** – An accounting tool that enables an estimate of the resource consumption and waste assimilation requirements of a defined human population or economy in terms of a corresponding land area. It accounts for the flows of energy and matter to and from any defined economy and converts these into the corresponding land/water area required from nature to support these flows. It measures the resources required to sustain households, communities, regions and nations, and converts complex concepts of carrying capacity, sustainability, resource use, and waste disposal into mathematical information, charts, and graphics. The tool is both analytical and educational. It not only assesses the sustainability of current human activities, but is also effective in building public awareness and assisting in decision making.

Reference: A Short Primer on the Ecological Fooprint. Best Foot Forward Ltd, Oxford, United Kingdom. Visit: www.bestfootforward.com/foot.html.

**Environmental Auditing** – Involves the systematic examination of environmental information about an organization, facility, or site, to verify whether it conforms to specified audit criteria. The criteria may be based on local, national, or international environmental standards, national laws and regulations, permits and concessions, internal management systems specifications, corporate standards, or guidelines of organizations. Environmental audits provide a snapshot of the environmental situation at a given time. They do not attempt to predict the potential impacts of planned activities. There are various types of environmental audits that may differ with the scope and objectives of the study.

Reference: "Environmental Auditing" in *Environmental Assessment Sourcebook Update*. 1995. World Bank. Washinton, D.C.

**Focus Groups** – Generally conducted with small groups of four to 12 selected participants who represent particular communities and community interests. In a facilitated session, lasting anywhere from two hours to two days, participants are presented with ideas or proposals, after which professional facilitators solicit people's reactions to what they have heard. The aim is to clarify values, feelings, concerns, and understandings of the representative group. Historically, focus groups have been used by businesses or political parties in developing marketing strategies. However, focus groups are increasingly used by social scientists and development practitioners to gather qualitative rather than statistical information from a sample group or several sample groups. Focus groups can be used to refine preliminary ideas and provide information to be used in other consultation activities. In the context of sustainability planning, a focus group meeting is a useful information-gathering tool that can be used to gain insight into public/community issues and priorities and to obtain feedback on action proposals.

Reference: *Involving Citizens in Community Decision Making: A Guidebook*. 1992. Program for Community Problem Solving (PCPS), Washington, D.C.

**Surveys** – Relatively low-cost method of directly obtaining information about people's attitudes, opinions, needs, perceptions, policy preferences, behavior, and characteristics. They can be designed to obtain quantitative or qualitative information from the public. Surveys can also be used to generate interest and involvement in an issue. In the context of sustainability planning, surveys can be used to gather specific information for issue identification and assessment, provide public feedback on decisions that are made by the stakeholder group, and provide public input into indicator selection and program monitoring.

Reference: *What is a Survey?* 1995. American Statistical Association. Alexandria, VA. Visit: www.whatisasurvey.info/.

**Vision Building** – A consensus-building exercise among stakeholders that involves developing a collective vision of the future in which social, environmental, and economic objectives are integrated. This vision will reflect a set of underlying values and principles and will provide targets to guide actions for a sustainable future. Visioning is an important first step in the formative stages of partnership building and in defining the scope of the planning exercise.

Reference: *Future Search: An Action Guide to Finding Common Ground in Organizations and Communities*. 1995. Berrett-Koehler Publishers, San Francisco, CA. Also Visit http://iee.umces.edu/ESDA.

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This glossary was adapted from the following reference: The Local Agenda 21 Planning Guide: An Introduction to Sustainable Development Planning. A publication of the International Council for Local Environmental Initiatives (ICLEI), International Development Research Centre (IDRC), and United Nations Environment Programme (UNEP). 1996.