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Sustainable Development

The Very Idea

MINNESOTA PLANNING ENVIRONMENTAL QUALITY BOARD



The Environmental Quality Board, staffed by Minnesota Planning, draws together five citizens and the heads of 10 state agencies that play a vital role in Minnesota's environment and development. The board develops policy, creates long-range plans and reviews proposed projects that would significantly influence Minnesota's environment.

Minnesota Planning is charged with developing a long-range plan for the state, stimulating public participation in Minnesota's future and coordinating activities with state agencies, the Legislature and other units of government.

The **Minnesota Sustainable Development Initiative** was launched in 1993 by Governor Arne H. Carlson, the Environmental Quality Board and the commissioner of Trade and Economic Development. The initiative is a collaboration of business, government and civic interests to promote policies, institutions and actions that ensure Minnesota's long-term environmental, economic and social well-being.

Sustainable Development: The Very Idea was prepared by Minnesota Planning staff member Rolf Nordstrom.

Upon request, *Sustainable Development: The Very Idea* will be made available in alternate format, such as Braille, large print or audio tape. For TTY, contact Minnesota Relay Service at 800-627-3529 and ask for Minnesota Planning.

For more information or for paper or electronic copies of *Sustainable Development: The Very Idea*, contact the Environmental Quality Board at Minnesota Planning:

MINNESOTA PLANNING ENVIRONMENTAL QUALITY BOARD



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GLOSSARY OF TERMS

Biosphere — the zone of the Earth where life naturally occurs, extending from the deep crust to the lower atmosphere. It can also refer to all the Earth's living organisms.

Carrying capacity — the number of organisms an environment can support for an indefinite period of time.

Ecosystem — a complex, interdependent system of plants and animals, including humans, and the physical and chemical environment upon which they depend.

Natural capital — environmental assets including nonrenewable resources, such as minerals and fossil fuels; the finite capacity of natural systems to produce renewable resources, such as food crops, forestry products and water supplies; and the capacity of natural systems to absorb emissions and pollutants resulting from human activities.

Sustainable community — a community that uses its resources to meet current needs while ensuring that adequate resources will be available for future generations. It does this by limiting waste, preventing pollution, maximizing conservation, promoting efficiency and developing local resources to generate a healthy local economy. In the broadest sense, a sustainable community resembles a living system in which all resources — human, natural and economic — are interdependent and draw strength from each other.

Sustainable development — like other large, guiding concepts, such as justice or liberty, sustainable development has many definitions. All of these interpretations share the fundamental idea expressed in the definition found in Minnesota Statute 4A.07, subd. 1: "development that maintains or enhances economic opportunity and community well-being while protecting and restoring the natural environment upon which people and economies depend. Sustainable development meets the needs of the present without compromising the ability of future generations to meet their own needs."

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Summary

Most Minnesotans agree that a high quality of life means having meaningful work, close-knit communities and a clean, healthy environment. They take pride in the natural beauty and bounty of their state and its diverse economic opportunities, and they like the idea of leaving things as good or better than they found them. This is the goal of sustainable development.

Some people maintain that population and consumption growth on a finite planet cannot be perpetual; thus, they are suspicious of sustainable development because “development” sounds the same to them as “growth.” On the other side of the fence are those who argue that ongoing economic growth is the definition of progress. This group is wary of sustainable development because it seems like a “no growth” strategy that will stifle progress.

But the concept of sustainable development in fact may offer a resolution to this growth-no growth debate. To do this, a distinction needs to be made between what should continue to grow or develop, such as jobs, capital and knowledge, and what should not, including pollution, waste and poverty.

For human activities to be sustainable over time, they should:

- Meet people’s economic and social needs
- Use renewable resources, such as timber and fish, at a rate that can be maintained over time
- Gradually reduce reliance on nonrenewable natural resources, such as coal and oil
- Reduce reliance on and limit the release of toxic substances that do not readily break down in nature
- Use all resources as efficiently and fairly as possible so that present and future generations can meet their needs
- Use land in ways that meet diverse needs, conserve financial and natural resources, and preserve its ability to meet future needs
- Reflect the interdependence of social, economic and environmental conditions
- Preserve the integrity of ecological processes and biological diversity

Natural systems are a model for thinking about how to produce, consume and live in sustainable cycles: Nature produces little or no waste, relies on free and abundant energy from the sun and uses resources very efficiently because there are so many different organisms with different needs. An economy that functions in such efficient cycles may be the answer to meeting the needs of a growing population.

Sustainable development is about creating a business climate where better goods and services are produced using less energy and materials with less waste and pollution. It is about communities planning for their future social, economic and environmental needs, and environmental constraints being integrated into everything people do.

Businesses that use sustainable practices can reduce both their environmental impact and their costs. Pollution not only wastes resources but adds no value to a firm's product or service. As with striving for zero defects, striving for zero environmental impact presents enormous opportunities for businesses to improve their profits.

Minnesota businesses and communities are beginning to tap those opportunities, as the examples highlighted in this primer suggest. From wind power generation and innovative community planning to environmentally sound products and businesses, activities contributing to sustainable development in Minnesota are growing rapidly.

Sustainable Development: The Very Idea seeks to help create an understanding of sustainable development as a model for progress.

Sustainable
what?

Sustainable development. For an idea that has captured the attention of 150 governments around the world and a growing number of businesses, communities and individuals throughout Minnesota and the nation, confusion persists about just what *sustainable development* means. This primer is meant to help create a common understanding of the concept, provide a few concrete examples and stimulate thinking about what progress may actually mean.

In the past, economic development and environmental quality sometimes have been seen as mutually exclusive goals: jobs versus conservation, economic prosperity versus environmental protection, humans versus endangered species. Indeed, some economic development has been detrimental to the environment and some environmental arguments have seemed to ignore the need to make a living. In contrast, the goal of sustainable development is to make human activities inherently compatible with the environment on which they depend.

When most people hear the word *development*, they think of malls, factories or houses going up. The national and state goal has been to expand the economy, build up cities and create new wealth by transforming natural resources into goods and services. Even the tool Minnesota uses to track its economic well-being, the gross state product, leads to equating progress with increasing amounts of money changing hands, whether it is spent on education or prisons. Development has come to mean growth and growth to mean progress.

Yet a growing number of communities, states and nations have begun making a distinction between growth and development. As a result, *development* has taken on a much broader meaning.

Taking a global view

In the early 1980s, members of the United Nations Commission on Environment and Development traveled the globe to survey the overall development of the world's nations. They looked at each country's economy, as well as the condition of its people and environment. They found that a combination of poverty, unemployment, resource use and environmental deterioration has created conditions that are not sustainable and that humans need a new model for development.

The commission concluded that the very nature of economic development must change if poverty and the cumulative negative impacts of human activities are to be reduced dramatically. In other words, the world must have sustainable development, which the commission defined as "meeting

the needs of the present without compromising the ability of future generations to meet their own needs.”

A commitment is made

In 1992, the United States and nearly 180 other nations met at the “Earth Summit” in Rio de Janeiro, Brazil, and agreed that sustainable development should be the goal and operating principle for governments, businesses and individuals around the world. At this meeting, heads of state from more than 150 nations, including the United States, committed to an ambitious plan called Agenda 21, which asks each country to develop a national strategy for sustainable development. In the United States, that commitment led to the establishment of the President’s Council on Sustainable Development, a group of corporate executive officers, Cabinet members and other civic leaders who have produced a blueprint for action. Agenda 21 has since been used to guide similar public-private efforts at national, state and local levels.

In the same year, two of the world’s most prestigious scientific institutions, the National Academy of Sciences and the British Royal Society, issued a joint statement that warned, “The future of our planet is in the balance. Sustainable development can be achieved, but only if irreversible degradation of the environment can be halted in time. The next 30 years may be crucial.”

Striking an even more dire tone, the nonpartisan Union of Concerned Scientists, an independent, nonprofit organization of scientists and others concerned about the impact of science and technology on society, issued a “Warning to Humanity” in which they caution that people and “the natural world are on a collision course.” Many current practices may make the world unable to sustain life, they warn, and fundamental changes are needed to alter this course.

This warning was signed by more than 1,500 members of national, regional and international science academies, as well as 99 Nobel Prize winners.

What is sustainable and what is not?

If the current ways in which people produce, consume and live are not sustainable, individuals and institutions will need new criteria to follow to change course. Such criteria have begun to emerge. For human activities to be sustainable over time, they should:

- **Use renewable resources, such as timber and fish, at a rate that can be maintained over time.** This rate will be different for each resource. One example is Minnesota’s “Generic Environmental Impact Statement on Forestry,” which provides basic scientific information on sustainable rates of timber harvesting.
- **Gradually reduce reliance on nonrenewable natural resources, such as coal and oil.** Recycling more metals will lessen the need to mine virgin minerals.
- **Reduce reliance on and limit the release of toxic substances that do not readily break down in nature.** The use of synthetic pesticides that build up in the environment could be reduced or eliminated, for example, through techniques that rely on natural organisms to control agricultural pests.
- **Use all resources as efficiently and fairly as possible so that present and future generations can meet their needs.** This could include a range of actions, from using energy-efficient lights and appliances to discouraging excessive buying habits.
- **Use land — a finite resource that has no substitute — in ways that meet peoples’ diverse needs, conserve financial and natural resources, and preserve the land’s ability to meet future needs.** Encouraging new building in areas that already have roads, sewers and other services is one way to meet this goal.
- **Reflect the interdependence of social, economic and environmental conditions.** For example, a social and economic change such as welfare reform also has environmental ramifications that need to be considered: How will former welfare recipients get to their new jobs? What fuel will the public transit system use? What are the economic and environmental trade-offs of that fuel choice?
- **Preserve the integrity of ecological processes and biological diversity.** Separate storm and waste water sewers in St. Paul, for example, prevent raw sewage from flowing directly into the Mississippi River after

rainstorms, protecting the quality of the water downstream in places such as Lake Pepin.

Goals of sustainable development

- Provide a high quality of life for present and future generations.
- Do this without exceeding the environment's ability to recycle wastes, provide resources and support a rich diversity of life.
- Meet current needs while leaving future generations as many options for resource use and development as possible.

A "Natural Step"

The United States and other highly industrialized nations produce a disproportionately large share of the world's goods and services. At the same time, they consume an equally disproportionate amount of the planet's resources. Only 7 percent of the physical resources used in the United States winds up as product, and only 1.4 percent is still product after six months. The economic system that allows for this is essentially linear, producing goods on one end and disposing of them on the other.

This is opposite of the efficient, sun-driven cycles of production and consumption found in nature. Unlike in nature's economy, most of today's wastes do not become "food" for another part of the industrial system, nor do they decompose harmlessly back into the soil. It need not be this way, however, as Sweden is showing.

The Natural Step was founded in Sweden in 1989 by oncologist Dr. Karl-Henrik Robèrt. Its purpose is to create and promote a shared framework for understanding and solving environmental problems.

As a scientist at Sweden's leading cancer research institute, Dr. Robèrt became convinced that effective action in response to environmental problems was being constrained by endless disagreements over details, preventing society from addressing the issue as a whole.

To remedy this, he asked 50 fellow scientists to assist him in drafting a paper outlining the fundamental principles that could define a sustainable society. Twenty-one working drafts later, the consensus document was endorsed by all participants.

From that document, four fundamental conditions necessary for a sustainable society were developed and adapted into a training program. Thousands of people, including managers from some of Sweden's largest companies and municipalities, have taken the training and, as a result, have begun the process of redesigning their processes and activities.

The Natural Step/U.S. is bringing this framework to interested communities, educational institutions and corporations in the United States. U.S. companies that are adopting the Natural Step principles include Interface, Inc., a billion-dollar flooring company; Mitsubishi Electric America; Collins Pine Lumber Company; and Placon, Inc., a plastics manufacturer. Other countries in which the Natural Step organization is active or forming include the United Kingdom, New Zealand, Australia, France, the Netherlands and Canada.

The Natural Step's guidelines are based on the following logic. We cannot be sustained by an environment with, for example, ever-increasing concentrations of heavy metals in the soils, ever-increasing concentrations of carbon dioxide in the atmosphere, ever-decreasing areas of productive agricultural land, ever-decreasing habitat for other living things, and so forth. We may argue about what levels of these things we can withstand, but no one argues that we can live with continuous loss or degradation in natural systems.

The Natural Step's first three conditions for a sustainable society are science-based, while the fourth is considered important for meeting the first three:

■ **“Substances from the Earth's crust must not systematically increase in the ecosphere.”** In other words, waste must not systematically accumulate. In practical terms, this means meeting our needs increasingly with recycled materials and renewable resources.

- **“Substances produced by society must not systematically increase in nature.”** This suggests that synthetic substances should not be released into the environment more quickly than they can be safely broken down in nature.
- **“The physical basis for the productivity and diversity of nature must not systematically deteriorate.”** This acknowledges that our health and prosperity depend on nature’s ability to turn our waste back into productive resources. It suggests that we should not allow this ability to diminish systematically.
- **“Basic human needs must be met with fair and efficient use of energy and other resources.”** Meeting people’s basic needs fairly and efficiently is a key to getting their cooperation in making the changes outlined by the first three conditions.

The Natural Step’s fundamental conditions do not detail specific steps to take or how quickly to take them; instead, they are a set of science-based “compass headings” that allow each individual, business or organization to decide how best and quickly to meet the conditions. If a certain activity continually violates the conditions, it cannot succeed economically in the long run. For example, a manufacturer that relies on a finite resource will eventually have to find a substitute or go out of business. Similarly, a company that relies on a renewable resource, such as trees, must use them no faster than new ones can take their place if the business is to survive.

For more information about the Natural Step organization, see their World Wide Web site at www.emis.com/tns.

How is Minnesota developing?

Minnesota has been a national leader in environmental stewardship and has created a strong and diverse business sector. Like other states and nations, however, it participates in a commercial system that often turns natural resources into waste. Some of the symptoms of this approach to development include:

■ **On a per capita basis, Minnesotans are generating more waste today than ever before.** Although Minnesotans recycled 42 percent of their solid waste in 1994 — one of the highest recycling rates in the country — they also produced more waste: 4.8 million tons of garbage, up from 4.4 million tons in 1990.

■ **While the amount of toxic chemicals released annually into the environment started on a downward trend in 1990, Minnesotans continue to produce and use products and services that generate these wastes.** In 1994, 24 million pounds of these chemicals were released directly into Minnesota's air, water and land, and 32 million pounds were transferred to public sewage systems and other locations away from the generating site. Hazardous wastes that are not properly managed threaten the economic and environmental value of land, water, and air as well as human health and ecosystems.

■ **Minnesotans are using 5 percent more energy per person than they did in 1990.** As noted in the 1993 edition of *Minnesota Milestones*, the state's 30-year plan, "the use of energy, particularly fossil and nuclear fuels, has a significantly adverse impact on the environment. Acid rain, global warming, smog and nuclear waste are but a few of the damaging outcomes of energy production and consumption." Although Minnesota is beginning to harness energy from the sun, through both wind power and agricultural crops, the state still relies heavily on the stored energy in coal, oil and uranium to power homes, cars and factories.

■ **Minnesotans are driving more.** The number of miles traveled in Minnesota between 1980 and 1994 rose 42 percent, despite little change in the number of total miles of public roads. Several factors contributed to this increase, including gains in the numbers of motor vehicles and drivers.

■ **Sixty-seven percent of Minnesota's monitored river miles were fishable and 41 percent swimmable in 1992, while 80 percent of its lake**

acres were swimmable. This is a limited picture of the state's water quality because only 4 percent of the state's river miles and 15 percent of its lakes are monitored.

■ **Minnesota is steadily losing farmland, forests and wetlands.** Farmland has decreased by more than 200,000 acres since 1982, while forest land has shrunk by 2.2 million acres in the last 20 years. Though the state now has a policy calling for "no net loss" of wetlands, as of 1992 about half of the state's 20 million acres of wetlands had been drained. Logging and land clearing for cropland account for most of this loss, but urbanization is a growing factor.

■ **Minnesota's population growth between 1990 and 1995 was the highest since the 1960s.** On average, the state's population expanded by slightly more than 1 percent annually over these years. Such dramatic growth has not occurred since the 1960s and is likely to create increased pressure on Minnesota's public service systems, such as roads, schools and sewers, as well as on the environment.

What do
Minnesotans
want to
sustain?

In 1993, Minnesotans were asked to describe what they liked most about their state and what they would like for the future. The resulting vision became part of *Minnesota Milestones*, an ongoing state project that tracks Minnesota's progress toward environmental, economic and social goals using measurable indicators. In the *Milestones* vision, Minnesotans take pride in the natural beauty and bounty of their state and its diverse economic opportunities. They also express a desire to leave things as good or better than they found them. To them, a high quality of life means having meaningful work, close-knit communities and a clean, productive environment.

Many Minnesotans understand that there can be no choosing between good jobs, prosperous communities and a healthy environment. They want all three. According to a recent phone survey sponsored by the Minnesota Office of Environmental Assistance, 61 percent of 625 randomly selected respondents disagreed with the idea that Minnesota must ease some of its environmental protection policies to attract and keep good jobs and compete with other states. When asked to describe what makes a high

quality of life, more respondents mentioned a healthy environment as their top consideration than any other factor, including safety, financial security and health. Finally, when offered a brief definition of sustainable development, 76 percent felt it “very closely” or “somewhat closely” reflected their own views.

The benefits of pursuing sustainable development also are supported by a 1994 report from the Institute for Southern Studies. It concluded that “the states that do the most to protect their natural resources also wind up with the strongest economies and best jobs for their citizens.” In the study, Minnesota ranked second only to Hawaii in the category of job quality and economic vitality and seventh in the environmental category behind Vermont, New Hampshire, Maine, Hawaii, Colorado and Wisconsin.

Still, debates over growth and development continue in Minnesota, as elsewhere, and there seems to be little consensus about exactly what can and should grow and for how long.

What is
development,
really?

Some people maintain that perpetual growth in population, consumption and waste production is impossible on a finite planet. They see this as a reason to halt all types of growth and are suspicious of sustainable development because “development” sounds the same to them as “growth,” and they see “sustainable growth” as a contradiction.

In contrast, others often argue that continued economic growth is the very definition of progress and the only solution to some of Minnesota’s most intractable problems, such as poverty and crime. Consequently, many proponents of continued growth are suspicious of sustainable development because it seems like a thinly veiled “no growth” strategy that will put an end to progress.

Sustainable development may offer a resolution to this growth-no growth debate — but only if a distinction is made between growth and development. Although these words are often used interchangeably, they

imply very different things. *Growth* suggests getting bigger. While *development* can mean growth, it can also mean getting better or achieving a potential. A human, for example, grows physically for only about 20 years, but continues to develop throughout his or her life. While Minnesotans may want some things to grow physically, they may want others to stay the same or decline.

When the members of the President’s Council on Sustainable Development struggled with this distinction, they found that what they thought could and should “grow” indefinitely were the same things they thought of as “development.” They agreed that “to achieve...sustainable development, some things must grow — jobs, productivity, wages, capital and savings, profits, information, knowledge and education — and others — pollution, waste and poverty — must not.”

Many still see sustainable development as a purely environmental idea. But it is far more than that. It is about creating a business climate where better goods and services are produced using less energy and materials with less waste and pollution. It is communities planning for how they will meet their future social, economic and environmental needs, and it is integrating environmental constraints into the design criteria for everything people do.

The World Business Council on Sustainable Development, a coalition of 120 international companies representing 33 countries and more than 20 major industrial sectors, promotes sustainable development as being not just critical for the environment but also good for business. Producing better goods and services using less energy and materials with less waste means businesses can reduce both their environmental impact and their costs. For example, since 1975, 3M has saved more than \$750 million by preventing pollution through cleaner production processes. The council argues that such continuous improvement in business practices will increasingly “become an important yardstick against which managers and customers will measure a company’s performance.”

Does
sustainable
development
benefit
businesses
and
communities?

**Seven
elements
needed to
achieve more
with less**

The World Business Council on Sustainable Development has identified seven elements needed to produce better goods and services using less energy and materials with less waste:

- Reduce the amount of materials used to produce goods and services.
- Reduce the amount of energy used to produce goods and services.
- Reduce the dispersion of toxic chemicals.
- Enhance the ability of materials to be recycled.
- Maximize the sustainable use of renewable resources.
- Extend product durability.
- Increase the service life of goods and services.

Connecting incentives to objectives

The behavior of both businesses and individuals is shaped, in large part, by current economic forces. According to David Buzzelli, a key to business success in the future will be including and internalizing all costs of production and distribution, including the very real but hard-to-quantify costs of pollution, damage to ecosystems and depletion of natural resources. Buzzelli is a vice president of Dow Chemical Company and former co-chair of the President's Council on Sustainable Development. He says such "full-cost pricing" is controversial because people get caught up in the details of how to put monetary values on such things as loons and lakes. At its most basic, though, it means paying for the use of the environment, both as a source for raw materials and as a sink for wastes. Buzzelli's advice is to not get trapped in the details but instead think about the larger concept of paying the full costs of activities. Dow has suggested that prices be set based on each product's environmental cost so that the higher the environmental cost, the higher the price would be — a relationship customers could readily see. Buzzelli asserts that companies that fail to take the approach of full-cost pricing will ultimately go out of business.

Doing well by doing good

Many countries, from New Zealand and Sweden to the Netherlands, Germany and Canada, are seeing an environmentally sustainable economy as a source of competitive advantage and an opportunity for great innovation and economic prosperity. These countries and others are betting that the next economic revolution will be about optimizing all resources: energy, local materials, land, human ingenuity and labor. *In Business* magazine maintains that more and more firms are strategically positioning themselves to thrive in a sustainable economy by reinventing what they do — from manufacturing processes and energy systems to building materials and household goods — to have less impact on the environment.

Michael Porter of the Harvard School of Business argues in a 1995 *Harvard Business Review* article that global competition and environmental progress both demand that companies find ways to do more with fewer resources. Porter points out that pollution is a form of inefficiency that not only wastes resources but demands additional work that adds no value to a firm's product or service. He argues that the same logic of continuous improvement that has driven the total quality movement applies to achieving superior environmental performance as well. But instead of striving only for zero defects, a company also seeks to have no negative environmental impact. Viewed this way, says Porter, environmental improvement represents enormous untapped opportunities for businesses to improve their bottom lines.

What is
government's
role?

Sustainable development may best be achieved through collaboration among citizens, businesses, civic groups and government. In an effort to shift government's role, in part, from enforcer to catalyst, Governor Arne H. Carlson, the Environmental Quality Board and the commissioner of Trade and Economic Development launched the Minnesota Sustainable Development Initiative in 1993. The initiative is staffed by Minnesota Planning.

The effort began with 105 business, environmental and community leaders, organized into seven teams, who mapped out a long-range vision

for Minnesota, new decision-making principles and sustainable approaches to agriculture, energy, forestry, manufacturing, minerals, recreation and settlement.

Advancing a vision for a sustainable Minnesota

The vision developed by the Minnesota Sustainable Development Initiative teams expresses what they believe sustainable development means for Minnesota and its people. Their vision is that Minnesotans:

- Make commitments and choices to preserve the options future generations will need to secure the quality of life we now enjoy
- See sustainable development as a positive, fundamental change in the way we define social progress, do business and protect the environment
- View the health of our natural environment, the strength of our community and our economic security as interdependent
- Maintain our quality of life through sustainable use of energy and natural resources, recognizing that population growth, resource consumption and lifestyle choices determine the options we leave for future generations
- Make our communities places where all citizens enjoy rich opportunities in education, employment, involvement in community and appreciation of the environment
- Work toward an economy that is healthy, diversified, globally competitive and in harmony with Minnesota's ecosystems, providing all citizens ample opportunity for a fulfilling life
- Help ensure that the state's natural environment remains biologically and ecologically diverse and able to provide the resource benefits, products and services needed for the indefinite future
- Continually work to change our political and economic systems so that they consistently reward economically efficient, socially beneficial and environmentally sustainable behavior

The Governor's Round Table on Sustainable Development has become the initiative's main forum for advancing these ideas. Made up of 30 business, environmental and community leaders appointed by Governor Carlson, its

mission is to serve as “a societal catalyst for sustainable development, fostering public and private partnerships and reaching out to Minnesotans across the state to stimulate interest in and communicate the importance of achieving sustainable development.” The Round Table has come up with a set of sustainable development principles to guide future decisions, and its current areas of emphasis are sustainable communities, land use and economic incentives.

The Round Table’s final report to the Governor, *Investing in Minnesota’s Future*, outlines six major challenges to sustainable development in Minnesota and some 70 strategies for meeting these challenges. The Round Table believes Minnesota’s priorities should be to:

- Provide a broad range of opportunities for learning about sustainable development concepts and practices
- Reform regulations and develop incentives to encourage practices that have net environmental, economic and community benefits over the long run
- Provide incentives for businesses interested in developing and adopting sustainable practices and technologies
- Examine the role of taxes and subsidies in encouraging sustainable development
- Ensure that community-based planning is a success and promote community development efforts that contribute to sustainability
- Establish new public-private institutions outside of government to aid in facilitating sustainable development in the state
- Measure, reward and publicize initiatives that contribute to the state’s long-term sustainability
- Ask government to set an example of sustainability in its own operations and functions

Copies of *Investing in Minnesota’s Future* are available from the Environmental Quality Board.

Principles seek to guide sustainable development in Minnesota

Adopted by the
Minnesota Round
Table on
Sustainable
Development,
September 18, 1996

The principles for meeting the needs of the present without compromising the ability of future generations of Minnesotans to meet their own needs are:

- **Global interdependence.** Economic prosperity, ecosystem health and social justice are linked and our long-term well-being depends on maintaining all three. Local decisions must be informed by their regional and global context.
- **Stewardship.** Stewardship requires the recognition that we are all caretakers of the environment and economy for the benefit of present and future generations. We must balance the impacts of today's decisions with the needs of future generations.
- **Conservation.** Minnesotans must maintain essential ecological processes, biological diversity and life-support systems of the environment; harvest renewable resources on a sustainable basis; and make wise and efficient use of our renewable and non-renewable resources.
- **Indicators.** Minnesotans need to have and use clear goals and measurable indicators based on reliable information to guide public policies and private actions toward long-term economic prosperity, community vitality and healthy ecosystems.
- **Shared responsibility.** All Minnesotans accept responsibility for sustaining the environment and economy, with each being accountable for their decisions and actions, in a spirit of partnership and open cooperation. No entity has the right to shift the costs of its behavior to other individuals, communities, states, nations or future generations. Full-cost accounting is essential for ensuring shared responsibility.

Minnesota's approach is already helping bring about change. Since the initiative began, the process of people listening to, and joining with, their former economic or environmental "adversaries" has led to new perspectives and ideas. These ideas have, in turn, supported a number of law changes aimed at helping Minnesotans meet the needs of the present without compromising the ability of future generations to meet their own needs. These policy changes include:

- **Sustainable Forest Resources Act of 1995**, which calls for public-private partnerships in protecting and managing Minnesota’s forest ecosystems.
- **Metropolitan Livable Communities Act**, also passed in 1995, which established a multimillion-dollar program aimed at redeveloping contaminated sites for the purpose of urban revitalization, while setting metropolitan area-wide goals for affordable housing.
- **Environmental Regulatory Innovations Act of 1996**, which offers individual facilities, sectors of industry, governmental units and even whole communities freedom from rigid regulatory requirements in exchange for higher environmental performance.
- **Chapter 454, Minnesota Laws of 1996**, which requires all state agencies, departments and boards to assess how well their missions and programs reflect and implement the Round Table’s principles of sustainable development or how they could be changed to do so. In addition, the law defines sustainable development (see the glossary) and requires Minnesota Planning to develop a sustainable development guide and model ordinances for use by communities.
- **Community-Based Planning Act of 1997**, which lays out 11 goals that define a framework for community-based comprehensive planning. The goals cover citizen participation, cooperation among local governments and sustainable approaches to economic development, conservation, community design, housing, transportation, land use planning, public investment and education. They define the state’s interests in planning and how Minnesota responds to growth and change.

Sustainable development activities in Minnesota are myriad. Some of the ways individuals, businesses and communities can promote a more sustainable economy and society are highlighted below.

- **Join or form an “EcoTeam.”** EcoTeams are made up of friends, colleagues, family members or neighbors who work together over four months to help each other reduce garbage; improve the efficiency of their use of water, energy and transportation; and become environmentally wise consumers and empower others to do the same. Sponsored by KARE-TV,

How to
support
sustainable
development

H.B. Fuller, Cray Research, Honeywell and others, the EcoTeam program offers an easy-to-follow workbook that outlines specific steps to help team members lighten their impact on the environment and save money. Call 612-824-7394 for more information.

■ **Promote environmentally sound business.** An example to follow would be Minnesota-based Colonial Craft, perhaps the first manufacturer of hardwood products drawn from temperate forests that meet rigorous standards for sustainable forest management. The \$20 million company has several lumber suppliers that are, or are becoming, certified as meeting three criteria: the forest is being managed sustainably, the integrity of the ecosystem is being maintained, and the community is benefiting socioeconomically. Colonial Craft sees certification as perhaps the best way to guarantee the perpetuation of forests and thus its own prosperity and that of its employees.

■ **Close the resource loop.** Consider the example of a Lanesboro, Minnesota, hog farmer who recognized two problems: a great deal of food goes to waste, and it costs a lot to feed hogs. In an effort to solve both problems, the farmer contacted restaurants, schools, nursing homes and hospitals in the Lanesboro area to ask if he could take their food waste. Eager to avoid the cost of disposing of their wastes, many readily agreed. The farmer then found an old boiler in which to process the waste into food for his hogs.

■ **Support development of Minnesota's renewable energy sources.** By the fall of 1998, Minnesota will have enough wind power facilities online to generate slightly more than 240 million watts of clean electricity. This is in addition to the 25 MW annual capacity from the wind turbines already along Buffalo Ridge, just southeast of Lake Benton, which have been operating since May 1994. These efforts are part of the 425 MW of wind power that Northern States Power is required to buy or contract for by 2002. The utility could have as much as 825 MW online by then. The Legislature has declared that all large wind energy systems should be "compatible with environmental preservation, sustainable development and the efficient use of resources."

■ **Look for opportunities to turn waste streams into profit streams.** Phenix Composites in Mankato combines lower grades of waste paper with soybeans in manufacturing composite materials for a number of applications.

■ **Incorporate community and environmental concerns as a core strategic business issue.** Monsanto has seven teams involving 140 employees working to expand the St. Louis-based company's activities from cleaning up and preventing pollution to identifying opportunities for revenue growth in what they hope will be new, environmentally sustainable products and technologies. Three teams are working on tools and methods that will assess, measure and provide direction for internal management. The other four are focused on examining the marketplace for new products and services that solve global water and food needs and on training Monsanto's 29,000 employees in this new approach to doing business.

■ **Launch a visioning and planning process to chart the community's future.** The Community-Based Planning Act encourages communities to voluntarily plan for their future and offers technical assistance. For more information, contact Minnesota Planning at 612-296-3985.

Such a process could include establishing a long-term community vision; describing the community's environmental, economic and social conditions, trends and assets; producing short- and long-term goals in these three areas; establishing indicators to measure progress; and producing implementation strategies and action steps for reaching the goals. The city of Embarrass is one of a growing number of Minnesota communities that are already doing this.

Like many small, rural communities, Embarrass has an aging and declining population, schools and businesses that are closing, a lack of jobs and a range of environmental issues. In response to these challenges, Embarrass has begun to inventory and map its resources and liabilities as a first step in preparing a comprehensive plan for sustainable development. The community has identified 21 significant economic, environmental and social factors it will use to measure how things stand and to track progress on achieving community goals.

■ **Join the Minnesota Sustainable Communities Network.** Sponsored by the Minnesota Office of Environmental Assistance, the network connects individuals and organizations interested in helping each other create enduring places to live and work. For more information, contact the Office of Environmental Assistance at 612-215-0243 or 800-657-3843.

How do
you know
sustainable
development
when you
see it?

■ **Get involved in the Minnesota Sustainable Development Initiative.**

Contact information is found on page 24.

To make more sustainable choices, Minnesotans will need to ask new questions. While not every question will apply to every situation, possible questions that reveal whether or not an activity contributes to sustainable development include:

General indicators

How does the activity . . .

- Contribute to Minnesota's long-term environmental, economic and social well-being?
- Avoid future social, economic or environmental costs? For example, does it inadvertently help create future polluted sites?
- Provide a transition away from unsustainable behaviors?
- Address root causes of problems and prevent them, rather than attempt to solve them after they have occurred?
- Add to the quality of life in Minnesota without diminishing it elsewhere?

Economic indicators

How does the activity. . .

- Follow market principles?
- Help Minnesotans achieve a reasonable standard of living?
- Keep money circulating in the regional economy?
- Meet local needs by adding value to local resources?
- Improve productivity by minimizing resource use, waste and pollution?

Environmental indicators

How does the activity. . .

- Minimize overall energy use, maximize energy efficiency and employ Minnesota's renewable energy sources?
- Reduce reliance on nonrenewable natural resources
- Minimize the use of virgin resources?
- Reuse existing materials?
- Use recycled and recyclable materials?

- Return wastes to productive use in the commercial system or harmlessly back into soil?
- Use and replenish renewable resources at a rate that can be sustained over time?
- Reduce reliance on and the release of persistent toxic substances?
- Preserve the diversity of plant and animal species?
- Avoid cumulative damage to the environment?

Social indicators

How does the activity. . .

- Help people meet their basic needs for such things as food, shelter, clothing, education and health care?
- Preserve the uniqueness of the community?
- Involve diverse stakeholders in shaping decisions that affect them?
- Create a greater sense of community?
- Improve human health?
- Improve public safety?
- Educate citizens about the impacts their actions have on the state's long-term economic, environmental and social well-being?

Although these indicators are divided into categories, they are interdependent characteristics of a sustainable community and society. For example, “preserving community character” is not just a social indicator, but part of what makes up the economic base of a community.

The logic behind sustainable development is really just common sense: If Minnesotans are to leave their children and grandchildren a state they are proud to pass on, what is good for the environment, for business and for communities must eventually become one and the same.

As Minnesota approaches the next century, the challenge for voters, businesses, communities, states and nations around the world will be, in the words of businessman and author Paul Hawken, “to reimagine a system of governance, commerce and production in which every act is inherently

Who makes
sustainable
development
happen?

sustainable and restorative.” In the end, it will be individuals who will help create a sustainable future. Everyone’s involvement at home, in their organizations and communities, and at the state level is critical.

Contact information

For more information about the Minnesota Sustainable Development Initiative, sustainable development assistance and what individuals can do in their communities, contact the Minnesota Sustainable Development Initiative at Minnesota Planning, 658 Cedar St., St. Paul, MN 55155; 612-297-1257 or 800-657-3794; e-mail, sustain@mnplan.state.mn.us. A directory of sustainable activities in state agencies can be reached through Minnesota Planning’s World Wide Web home page at www.mnplan.state.mn.us.

Other useful web sites

- Business for Social Responsibility, www.bsr.org/
- Center for Sustainable Communities, weber.u.washington.edu/~common/
- Center of Excellence for Sustainable Development, www.sustainable.doe.gov/
- GreenClips (sustainable development examples), solstice.crest.org/sustainable/greenclips/info.html
- Indicators of Sustainable Development, www.subjectmatters.com/indicators/
- International Chamber of Commerce, www.iccwbo.org/
- International Institute for Sustainable Development, iisd.ca/
- The Natural Step, www.emis.com/tns
- The New Bottom Line, www.eco-ops.com/eco-ops
- Office of Environmental Assistance, www.moea.state.mn.us
- President’s Council on Sustainable Development, www.whitehouse.gov/WH/EOP/pcsd/
- Sustainable Business Network, www.envirolink.org/sbn/
- Sustainable Communities Network, www.sustainable.org/
- World Business Council on Sustainable Development, www.wbcsd.ch/