

Environmental Quality Indicators

BACKGROUND

Environmental quality indicators are used to assess the environment's capacity for supporting human and ecological health. They can warn of impending environmental problems and enhance policymakers' and regulators' ability to manage and resolve these problems. They also may be used to gauge progress in meeting short- and long-term environmental goals.

Environmental indicators are only as useful as the information on which they are based, and the measuring devices must be selected carefully. In most cases, indicators are applied for at least three years, so that trends may be examined.

Thirty-seven states voluntarily have established environmental indicators; others are in the process. To encourage the states, the U.S. Environmental Protection Agency (EPA) and the Florida Center for Public Management (Florida State University) are creating a list of indicators (currently over 1,000), incorporating measures already proven successful and others that have been proposed but not tested extensively.

Legislation is pending (House Bill 4558) that will require the Michigan Department of Environmental Quality (MDEQ) to (1) compile environmental data into a single report and (2) convene an advisory panel to establish a set of environmental performance measures. Information such as the following would be established and reported as Michigan's environmental quality indicators:

- State totals for toxic releases
- State air-emission totals for certain pollutants from major sources
- Number of violations of national ambient air-quality standards
- Size and location of areas where air quality standards are not being attained
- Percentage of state waters supporting and not supporting designated uses (e.g., fishing, swimming)
- Areas having impaired water quality
- Number, location, and volume of combined sewer overflows
- Frequency with which maximum contaminant levels for pollutants in public water supplies are exceeded and where such violations occur
- Total amount of solid waste that has been landfilled
- Percentage of landfilled waste that is imported
- Amount of hazardous waste generated in Michigan and the amount imported and exported

GLOSSARY

Environmental quality indicator

A measure of the environment's ability to support human and ecological health.

Sustainability

The capacity of actions and programs to meet the needs of the present without compromising the ability of future generations to meet their own needs.

DISCUSSION

Attempts to measure improvements in the environment have been occurring since the 1970s, when most of the major environmental laws were enacted. Environmental regulation is a subject of continuing debate: Supporters believe vigorous regulation is vital to protecting natural resources and ecosystems and guarding public health and welfare; opponents believe too much regulation is detrimental to economic production, since complying with it is expensive and burdensome.

Sustainability

In 1996 the President's Council on Sustainable Development attempted to integrate goals for a healthy environment and economy. It adopted *sustainability* as an overall aim and defined it as "meeting the needs of the present without compromising the ability of future generations to meet their own needs." The council established ten goals, each of which has indicators of environmental and economic progress.

The sustainability concept has spread, and across the country groups are working on ways to promote sustainability without compromising either environmental or economic objectives. Several groups in Michigan have initiated such tasks.

- The City of Detroit/Wayne County Roundtable on Sustainable Development consists of representatives from local economic, environmental, and public sectors; one of its goals is to develop indicators that measure the sustainability of development projects in the city and county. Sustainable Renaissance, a sub-group of the Roundtable, is charged with this effort.
- Ann Arbor Area 2000 is jointly sponsored by the Ann Arbor Area Chamber of Commerce and the University of Michigan; the group's objective is to identify measurable quality-of-life indicators and gather valid, accurate, and reliable information that may be used to better the quality of life in the Ann Arbor area. The organization publishes an annual quality-indicator report,

which is presented at an annual community summit intended to be a catalyst for mobilizing the community in addressing problems.

- The Southeast Michigan Council of Governments (SEMCOG), serving seven southeast Michigan counties, has organized an effort (under an EPA grant) to provide an environmental profile to local decision-makers. The project, initiated in 1997, has an advisory panel that is identifying environmental goals and objectives and measurable indicators.

Environmental-Indicators Legislation

If the current legislation is enacted, and the MDEQ is required to compile a report that summarizes environmental data available around the state, proponents believe the effort will help determine which state programs are successful and which need improvement. Proponents see this legislation as a means to close the information gap among the MDEQ, Michigan Department of Natural Resources, the legislature, and others because it will require that indicator and trend information on environmental quality be compiled in one place. Opponents contend that the report is unnecessary since the data already are collected by the MDEQ and made publicly available. They also point out that the current bill does not provide for sufficient input by the regulated community as to what should be included in the report.

See also Air Quality; Environmental Audits; Great Lakes Concerns; Solid Waste Management and Recycling; Water Quality.

FOR ADDITIONAL INFORMATION

City of Detroit/Wayne County Roundtable
on Sustainable Development
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