

whether the actual performance measures up to this standard. They need information on developing trends and pressure points and on how the system is likely to behave in the future in response to changing policies and other driving forces. They need feedback on what adjustments to make to speed up or slow down the effects of interventions. And they need information about milestones achieved or about failures that have frustrated progress. Providing decision makers with the information they need promotes better decisions about whether and how to change the system.

BRINGING INFORMATION TOGETHER

Because sustainable development involves all sectors of society, the information needed for decision making is both vast and varied. Integrating data, information, and knowledge from various social, economic, and environmental subject areas and from various regions into an appropriate information base to address a sustainable development issue requires specialized expertise. Scientific study and analysis in the areas of economics and the natural and social sciences provide the basic data needed to understand the state and performance of a system. These data may be gathered in many ways. For example, environmental data may come from scientific measurement in the field, technologies such as airborne and satellite remote sensing, or the traditional knowledge of Aboriginal peoples.

Scientific data can then be integrated with tools, such as indicators, predictive models, and intelligent systems, that are useful in following the progress of a system under various stresses and in predicting future performance. Knowledgeable people are then needed to interpret the information base in a way that best represents the issue and to place it in the proper sustainable development context. This interpretation must be easily communicated to policy makers, the public, and stakeholders to inform of the decisions that build strategy and produce action at all levels.

Harmonizing Information Nationally

In Canada, sustainable development is the jurisdictional responsibility of all levels of government. Mechanisms are needed to ensure that work toward sustainable development at all government levels is mutually supportive and has a common goal. One such mechanism is the Canadian Council of Ministers of the

New Standards for Particulate Matter and Ground-level Ozone

The Canada-wide Environmental Standards Sub-Agreement under the Canada-wide Accord on Environmental Harmonization sets out principles for governments to jointly agree on priorities, to develop standards, and to prepare complementary work plans to achieve those standards, based on the unique responsibilities and legislation of each government. In June 2000, the Government of Canada, the provinces, and the territories adopted the new Canada-wide Standards for Particulate Matter and Ground-level Ozone that set ambient air quality concentration targets for ground-level ozone and fine particulate matter for 2010. In addition to measures for vehicles, fuels, and solvent-containing products, Environment Canada is working with the provinces and territories to develop comprehensive emission reduction strategies for a number of major industrial sectors in Canada.