

Science-Based Environmental Report Cards and Indicators from the Watershed to the National Scale

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Do We Need Indicators?

- What Are Indicators?
 - “Simply put, indicators are quantitative or qualitative measures that can be used to represent the state of the environment, and to illustrate the effects of certain stressors or behaviors on that environment.”

Source: Dave Pascoe, Focused National Indicators Workshop
http://www.inece.org/conference/7/vol1/36_Pascoe.pdf

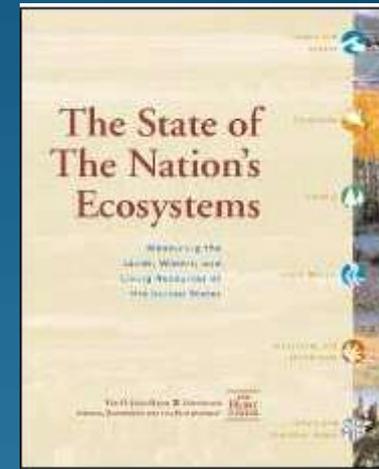
GAO Forum on Key National Indicators (GAO 03-672-SP)

- Developing National Indicators is Important
- A Broad Range of Information Areas are Considered Significant
- A Rich History of Indicator System Warrants Collective Research
- A United States Initiative Must Build on Past Lessons and Current Efforts

A Very Brief History.....

- Independent activities on indicators occurred throughout the 1990s in various federal agencies and states.
- Work in OSTP-CENR in mid-1990s led to *Recommendations for a National Environmental Monitoring Framework* (March 1997)
 - Vice President Gore challenged federal agencies—“... *work together with the scientific community and other interested parties to create an environmental “report card”*”

- Several National Academy of Sciences studies
 - *Nature's Numbers: Expanding the National Economic Accounts to Include the Environment* (1999)
 - *Ecological Indicators for the Nation* (2000)
- Heinz Center reports in 2002 and 2008
 - 6 sectors of the environment - more than 100 indicators
- 2004 GAO Report: *Environmental Indicators: Better Coordination Is Needed to Develop Environmental Indicator Sets that Inform Decisions*
- USGS issued Circular 1223, *Concepts for National Assessment of Water Availability and Use* (2002)
- EPA issued draft *Report on the Environment*



“While a host of federal and state agencies collect a vast amount of environmental and natural resource data, our ability to produce actionable information is limited by the fact that the data currently collected are inconsistent, incomplete and, often, simply not adequate for decision-making.”

National Academy of Public Administration
*A GREEN COMPASS: NEXT STEPS TO ADVANCE
NATIONAL SYSTEM OF ENVIRONMENTAL
INDICATORS*

Can Indicators Be Integrated Across Spatial Scales?

- Panelists will discuss Federal, State, Local and Watershed efforts to develop indicators.
- Is it possible or even desirable to aggregate information from various spatial scales?

Types of Information and Functions (Rich Guldin)

