



FREQUENTLY ASKED QUESTIONS
About the
State of the Nation's Ecosystems 2008

REPORT CONTENT

• What is different from the 2002 report?

The 2008 report has more data and improved indicators.

The goal of this project has been to report on a similar series of indicators over time, to help track key trends, and to incrementally improve these indicators over time. The 2008 report was designed with evolution in mind, rather than as a wholly new report.

- There are new indicators (six) to address things our readers noted as important, but missing, from the 2002 report.
- Many indicators have been redesigned (10) or refined (46) to ensure they provide the best and most useful information
- Both the new indicators and refinements were developed by multi-stakeholder technical committees, just like the content of the 2002 report was developed
- There is more data – more indicators have either partial or full data (68 compared to 58 in the 2002 report)

• What major changes since the 2002 report does the report identify?

The report does not identify dramatic changes since 2002, although by adding several years to earlier data, it does highlight some potentially important trends:

- Nitrogen loadings from the Mississippi River – which were growing from the 1950s to the 1980s – have not shown a clear upward or downward trend in recent years (since 1983)
 - We can only measure this key trend in three major river systems, representing 48% of the freshwater inputs. Given the potential, for example, for significant changes in agricultural practice to accommodate biofuels, additional data for other river systems are needed to better understand future trends in nitrogen loadings.
- Wildfire acreage had declined from historic highs in the 1930s until recent decades, but there appears to be an upswing in fire acreage. Other data appear to attribute this upswing to western forest fires.
 - National wildfire data do not distinguish between forest and grass/shrub fires, nor do they distinguish very hot and damaging fires from cooler, more frequent fires
- In a 1999-2002 survey, at least five of 81 tested contaminants were detected in nearly all sampled saltwater fish. Some contaminants are declining; from 1988 to 2004, mussels

and oysters showed a slight decrease in concentrations of DDT and PCBs (banned substances), but not mercury.

- National Coastal Assessment data for detected contaminants in saltwater fish do not yet allow tracking of trends over time.

• What are the report's major findings?

The report includes significant findings in many areas, including contaminants and water quality, nitrogen and agriculture, erosion, carbon storage and other climate change indicators, wildlife and biodiversity, and changes in land use patterns.

See “Key Findings” fact sheet for more information.

• What does the report say about climate change?

The State of the Nation's Ecosystems was designed to look at broader ecosystem condition, rather than focus on one specific factor, such as climate. Ecosystems are affected by many factors, including climate, and teasing these apart is difficult.

However, the report does include many **indicators that reflect climate or are relevant in terms of climate policy** – these include measurements of

- **Sea surface temperature** – which rose significantly in the past two decades in U.S. coastal waters of the Gulf of Mexico, Gulf of Alaska, and South Atlantic.
- **Carbon stored** in forests, farmlands, and grasslands and shrublands – all of which increased over recent decades for those ecosystem components that are measured in the report

The report also tracks **many indicators that will be affected by climate change**. These include:

- Area of forests, croplands, wetland, and grasslands and shrublands
- Numbers of species at risk of extinction and the status of commercially harvested fish stocks
- Information on crop yields and the inputs needed to produce them
- Changes in stream flows
- Coastal erosion
- Wildfire acreage
- Groundwater levels
- And many more

See “Focus on Climate Change” fact sheet for more information.

• **What policy recommendations does the report make about managing the environment?**

None. The report simply provides information about changes in the environment.

• **What policy recommendations is the Heinz Center making about environmental indicators?**

The Heinz Center is also releasing *Environmental Information: Roadmap to the Future*. This short policy report recommends that:

- **Congress** authorize the creation of a set of national indicators and take steps to make sure they are reported and used in policymaking,
 - The selection of national indicators should be overseen by representatives from the federal governments, states and local government, the private sector, environmental organizations, and others.
 - The national indicators should be linked to the information used and collected by states, local governments, and others. Collectively, these needs should define an agenda for improving both the amount of data available and the coordination among data providers.
- **Congress and the executive branch** provide increased funding for high priority environmental data collection. Chronic underfunding of environmental data collection is a key cause of the lack of reliable and comparable information.
- **The executive branch** immediately take steps to begin consultations with stakeholders leading to selection of a set of national indicators (complementing the Congressional action).
 - There is significant momentum from The Heinz Center work and that of others, including EPA (Report on the Environment) and other agencies and multi-stakeholder initiatives. The executive branch should maintain this momentum during the transition to a new administration and the new administration should endorse and move forward on this track.
- **States** especially make greater efforts to ensure that the data they collect is compatible with that of other states and with federal data gathering efforts.

It is important to note that these are **Heinz Center** recommendations, based on the Center's decade-plus work in this area. They are not necessarily endorsed by all the parties who developed The State of the Nation's Ecosystems 2008.

REPORT ORIGINS AND PREPARATION

• Who commissioned this report?

SNE was commissioned by the White House Office of Science and Technology Policy (OSTP) in 1997. The Council on Environmental Quality continued this mandate when it took over responsibility for arranging funding in 2002.

• Who prepared this report?

The Heinz Center worked with hundreds of experts representing businesses, environmental organizations, academic institutions, and federal, state, and local governments. The report was prepared by a small Heinz Center staff, aided by expert consultants based on the insights and experience from this multi-sector base of expertise.

A full list of participants is included in the report.

• Who paid for this report?

Federal agencies, foundations, and corporations. Federal agencies provided about half the funds and the Heinz Center raised the remainder from corporations and foundations.

A full listing of funders is included in the report.

• Is this report based on peer reviewed science? Was the report peer reviewed?

The SNE is based on the best current science available – our expert committees include people who are well known and published authors and practitioners in the many fields needed for this endeavor.

The data in SNE is from major institutions, most of them federal. They represent the best available – and often highly reviewed – large scale data sets in the US.

The report itself was reviewed by a wide range of outside parties, and seventy nine separate sets of comments were received – and since many of these came from federal agencies, the number of actual reviewers is probably quite a bit larger.

THE FUTURE

• When is the next State of the Nation's Ecosystems going to be released?

- The Center has now completed two reports, which we believe clearly proves that the concept of multi-sector driven national indicator reporting works.
- The White House has examined the need to institutionalize national indicator reporting, and no final decision has been made.
- Future federal funding will, in reality, be determined by the incoming administration and the next Congress.

The Heinz Center strongly believes this work should continue and stands ready to work with Congress, both outgoing and incoming administrations and private and corporate funders to move toward a third report, perhaps expanded to cover aspects of the environment – such as human health and energy – not covered in the SNE reports.

• What is the Heinz Center going to do next in this area?

The Center hopes to continue to work on ensuring that decision makers and the American public receive periodic, high quality, nonpartisan reports on key environmental trends.

• Have any of the candidates endorsed the report?

No, and none have been asked to. Over the summer and fall, the Center plans to brief the two major party campaigns on both *The State of the Nation's Ecosystems* and the *Road Map* report. We hope also to advise the transition teams for the incoming administration.

• What should Congress do with this report?

Along with releasing SNE 2008, the Center is recommending that Congress focus attention on the state of the nation's environmental monitoring and reporting enterprise. Specifically, Congress should

- Provide funding for continued work on national indicator reporting
- Expand the resources devoted to improving the coverage and integration of federal and state monitoring
- Authorize a national indicator reporting effort – to ensure it weathers many transitions between administrations, and has input from federal agencies, states, and local governments, the private sector, environmental organizations, universities, and others. . This authorization should link getting the data needed for national reporting with improvements in data quality and availability for decision makers at multiple levels of geography and government
- Figure out a way to deal with the fragmented committee jurisdiction over the many components of the nation's environmental information system. Expecting these many pieces to simply “fit together” without any coherent guidance and oversight is unrealistic.

• What should the executive branch do with this report?

- It should act decisively to maintain the momentum created by The Heinz Center and other related activities to ensure that
 - Planning for a successor to *The State of the Nation's Ecosystems 2008* commences immediately.
 - This should build on the many indicator activities currently underway, augmented by expanded collaboration between national decision makers such as Congress as well as with states, local governments, the private sector, NGOs, and others about their needs for information and perspectives on what should be tracked.
 - It should also consider expansion of the scope of reporting, beyond “ecosystems” to a broader view of “the environment”. This might entail expanded reporting on issues related, for example, to human health, energy use and production, and similar topics.
 - Federal agencies begin to set cross-program priorities for collection of information, and better integrate existing data collection and reporting programs.

RELATIONSHIP TO OTHER ACTIVITIES

• What is the relationship of this work to the just-released EPA Report on the Environment?

Our report and the EPA report are extremely complementary. The State of the Nation's Ecosystems 2008 is designed to report on important changes in the nation's ecosystems, regardless of what they are caused by or who is responsible for addressing them.

EPA's report focuses on those aspects of the environment for which EPA has legal or regulatory responsibilities. EPA is attempting to build a system that helps them evaluate and refine their activities to better achieve their mission.

Of course, there are important areas in which the two reports overlap, and we have had extensive consultation with EPA on how to report consistently on these common topics.

• What is the relationship of this work to the Millennium Ecosystem Assessment?

The Millennium Ecosystem Assessment was different in many ways from SNE. For example, it

- Was global in scope
- Was a onetime effort
- Included judgments about the positive or negative nature of trends
- Made predictions about the future
- Made policy recommendations

However, there were important common elements. Both reports:

- View the goods and services derived by people from ecosystems as a crucial element in reporting on ecosystem change. Obtaining food, fiber, water (and increasingly, energy) from ecosystems is a major reason for their management, and thus a major aspect of "how they are doing"
- Focus on a relatively small set of key trends – such as land use, chemicals and nutrients, changes in biodiversity, and goods and services.

• What is the relationship of this work to the National Report on Sustainable Forests?

The National Report on Sustainable Forests is a report by the US government to a group of nations that have developed a set of indicators of sustainable boreal and temperate forests.

However, while the indicators came from different processes and differ to some degree, there is remarkable consistency in the indicators used where the two reports cover common ground.

A major difference between the two reports is that the national report has indicators for social, economic, and legal aspects of forestry. The State of the Nation's Ecosystems does not address these topics.

- **What is the relationship of this work to the work of the Sustainable Resource (Forest, Water, Rangelands) Roundtables?**

The Sustainable Resource Roundtables (“roundtables”) are multi-sector efforts to develop or advance indicators for various ecosystem types.

The roundtable indicator sets are very compatible with the SNE indicators and we believe the multi-stakeholder aspect of these projects is extremely important and valuable.

Because they are specific to one ecosystem, the roundtable indicator sets generally have more indicators about that ecosystem than SNE 2008 does.

The Sustainable Resource Roundtables – like the US National Report and the forest indicator set it is based on – also address topics like social and legal issues, that the SNE does not cover.

- **What is the relationship of this work to the new NEON project (National Ecological Observatory Network)?**

NEON is a new initiative that is working for significant funding for a national suite of highly instrumented and networked ecological research facilities.

We believe NEON has the potential to serve as a catalyst for bringing information it collects together with information collected by many other extensive networks, and to expand data collection on key environmental topics.