# LIFE SUPPORT SYSTEMS: LAW AND POLICY

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## Contents



## Summary

Questions concerning the intellectual foundations of law and policy for maintenance of life systems have dominated the environmental and natural resources debate for the last generation. During the last 30 years, an international consensus aided by the United Nations Conferences on Environment in 1972 and on Environment and Sustainable Development (UNCED) in 1992 have fostered a growing consensus on law and policy to aid sustainable development This movement is still in its infancy, but important advances both at the international and national level point the way to further progress. A key factor will be decision-making that integrates sound science and better economic analysis into policy.

This chapter surveys ongoing efforts at the global level, made through treaties and international agencies to foster the emerging law of sustainable development. But because treaty obligations are fulfilled through the actions of nation states, the chapter samples the law and policy of a single nation, the United States, to see how decision-makers integrate relevant knowledge into policy.

In every country, environmental decision-making is made against a background of scientific uncertainty, flawed economics, and fiercely competing social values. Advances in environmental protection measures have been driven by scientific discoveries and restrained by economic forces. Future progress in the protection of life systems will depend on strengthening the knowledge foundations in natural science, in reshaping economic doctrine, and in the study of human behavior. Changes in national laws are needed to facilitate this effort. These reforms need to focus on changing development laws in the agricultural, transport, and other industrial sectors to work for sustainability.

## 1. A Growing Consensus for Law and Policy to Foster Sustainable Development

A broad outline of widely accepted principles defines the body of environmental policies, thanks to the United Nations Conference on Environment and Development in 1992. We cannot overestimate the significance of the Rio Declaration on Environment and Development and as consensus documents. All good law rests on a solid foundation of societal consensus. More than 100 heads of state met in Rio in June 1992, to discuss how to create a program that leads to both economic development and increased environmental protection. UNCED closed with substantial achievements; delegates signed treaties on global warming and biodiversity; passed, an ambitious outline of future directions for policies and laws; and signed the Rio Declaration.

Between Stockholm in 1972 and Rio in 1992, a compelling body of scientific data gave increasing evidence of human activity's destructive impact on the global commons. A series of United Nations conferences addressed discrete environmental problems such as desertification, safe drinking water, population, and laid the foundation for ambitious treaties to protect the global environment. Each of these treaties was supported by extensive scientific and economic analyses justifying the action. Some of the major treaties are:

- Convention on International Trade in Endangered Species
- Montreal Protocol on Substances that Deplete the Ozone Layer
- Basel Convention on Transboundary Movements of Hazardous Wastes
- Convention on Biological Diversity
- Convention on Climate Change
- Kyoto Protocol to the United Nations Convention on Climate Change
- Convention to Combat Desertification.

In each of these areas, the questions concerning the law as lived will turn on national practices. The national leaders at Rio and at the United Nations in succeeding years are firm in holding to national sovereignty as a bedrock principle. Despite the dynamic of globalization, the principle of sovereignty remains the primary force for determining a state's environmental laws and policies. Thus, the analysis of how law, economics, and policy work for or against sustainability must proceed nation state by nation state. However, there is a great deal of commonality among states in the objectives they foster in their laws and the tools they use. The development and current status of United States law reflects similar experience in other developed countries and will be used in this chapter as the basis for analysis of how decision-makers integrate science and economics into policy.

Around the globe, in industrialized and in developing countries, the Rio agreements have fostered actions for new policies and laws. The Rio Declaration lists 27 substantive principles that should govern national laws on environment and development. The first principle places humans at the center of concern; the following principles mirror a strong commitment to poverty alleviation and to increased human welfare. The substantive environmental principles include a legal duty not to cause environmental harm, a commitment to environmental impact assessment and the integration of environmental protection into development activities. The polluter pays principle, and

the precautionary principle have especially important ramifications for decision-makers integrating science and economics into law and policy.

The Rio Declaration's contributions to defining better environmental law at the national level are furthered by Ch. 8, of *Agenda 21* entitled "Integration of Environment and Development in Decision-making." *Agenda 21* sets the global environmental and developmental goals for the coming decades and identifies the issues that must be dealt with at the national level if countries are to achieve healthy development. It illuminates the environmental expectations of the future and is a reference point for governments and industry planners. *Agenda 21* contains 115 action items: programs in forestry, fisheries, cleanup technology, as well as directions on institutional arrangements and procedures designed to encourage participation. Each of these agenda items requires follow through at the national level.

Section 8a declares that although different nations will use different approaches in improving processes, institutions, and data collection, each government should adopt a national strategy for sustainable development. These national strategy documents are a prime source of knowledge on progress in integrating policy, law, and economics in decision-making.

Section 8b calls for a dramatic escalation of environmental law activity at the local level and urges governments to:

- Make laws and regulations more effective;
- Establish improved judicial and administrative procedures;
- Create legal reference and support services;
- Establish a cooperative training network for lawyers;
- Develop effective implementation programs to decentralize *Agenda 21* to the regional, national, and local levels.

Law is perceived as the driving force to achieve *Agenda 21*'s goals. Most of the UNCED documents are framework conventions that become effective only through the passage of implementing legislation at the national and local level. Without effective environmental law at the national level, the international commitments in the treaties aimed at protecting the commons will be ineffective.

Section 8c on economic instruments lays out the most radical and challenging sections of *Agenda 21*, making recommendations on reorienting government policies and budgets, and changing the pricing system. Section 8d calls for establishing systems for integrated environmental and economic accounting. As the environment and development dialogue developed during the 1980s, decision-makers became increasingly more wary of conventional accounting tools for economic activity. Measures such as the Gross National Product masked rather than revealed important resource questions. Section 8d calls for policymakers to define new accounting measures.

The integration of science into policy is addressed by the United Nations Commission on Sustainable Development (CSD) which was created in December 1992 to foster

follow up of the Rio accords and to monitor and aid implementation at the national level of each country's sustainable development strategy. As part of its work, the CSD fosters and reports on research on sustainability indicators. The CSD has a mandate to publish reports on each member state's progress in carrying out its sustainable development strategy. The reports address social factors, economic trends, natural resources, and the nation's strategy in integrating science and economics into law and policy. These reports are a major source in discovering how governments are using policy, law, and economics in support of sustainable development. The CSD reports are based on submissions by the governments and are not subject to independent verification. The government submissions from many developing countries tend to be cursory and the amount of information varies sharply from country to country.

The CSD publishes a summary of the country report and its evaluation on the United Nations web page. While states are requested to send the texts of their environmental statutes, these do not get published on the CSD web site. A major theme for the CSD and citizens working for sustainability will be the access to legal information for the unconnected, those who are not part of the World Wide Web. While many industrialized nations have made access to their laws easier with electronic posting, most have not. Electronic law services are prohibitively expensive. In the new century most national statutes embrace the principles of the Rio Declaration. But, the law as lived, shows a gulf between the industrialized nations of the Organization for Economic Co-operation and Development ( OECD ) and the developing world.

A comparison of the national environmental laws reveals more similarities than dissimilarities. This is especially true of the industrialized nations. The OECD publishes periodic exhaustive reviews of each member state's environmental performance. In each country, the reports describe the details of a recurring contest between those who seek to strengthen environmental safeguards and those seeking to protect current business interests and patterns of consumption. Turning to the United States as an example of how one nation integrates science and economics into decision-making, the OECD report gives an objective assessment of America's progress. That assessment yields a stark contrast between America's comparative success in management of industrial pollution and its unwillingness to address other human activities. A closer look at decision-making in the United States will demonstrate issues that must be addressed to enable decision-makers to act to protect life systems.

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**Biographical Sketch**

**J. William Futrell** is the President of the Environmental Law Institute. Before coming to ELI, Mr. Futrell was a trial attorney in New Orleans and later Professor of Law at the University of Georgia and at the University of Alabama. He has been a Woodrow Wilson fellow at the Smithsonian Institution, past President and member of the Board of Directors of the Sierra Club during the 1970s, a delegate to the 1977 United Nations Conference on Water at Mar del Plata, and a Fulbright scholar in Germany. He graduated from Tulane University, and received his law degree from Columbia University. Mr. Futrell is a 20-year veteran of ELI. Under his leadership, ELI's expert staff of lawyers, scientists and economists are involved in one of the nation's largest environmental publication, education, and policy efforts. The Institute publishes the *Environmental Law Reporter*, the ELI Deskbook Series, *The Environmental Forum* and the *National Wetlands Newsletter*, and conducts the largest continuing education program in environmental law and management in the United States. Drawing on 32 years' experience as a litigator and legal educator, he works with ELI's staff to advance environmental protection by improving law, management, and policy.