

Abstracts

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## **Environmental Management Systems: A Sustainable Strategy for a Sustainable World?**

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### **Abstract**

Over the past several years many business firms worldwide have adopted formal environmental management systems (EMS) as a procedure for systematically identifying environmental aspects and impacts of their operations, setting explicit goals for compliance, performance and continuous improvement, and managing for them throughout their operations. This procedure has been standardized and promoted by the International Organization for Standardization (ISO), at the suggestion of the Business Council for Sustainable Development, as a strategy for achieving sustainable use of the environment by businesses themselves-"governance without governments"-whether or not they are subject to effective government regulation and enforcement.

A timely and important series of questions, therefore, is whether the adoption of formal EMS procedures does in fact produce more sustainable environmental and economic outcomes, and whether the adoption and use of such procedures is itself a sustainable business practice. On what environmental aspects and goals do they focus: regulatory compliance, superior performance, or unregulated environmental impacts? What benefits and costs follow from the use of EMS procedures-to the firm, to governments and other stakeholders, and to the public? How much do these outcomes depend on the EMS design process: on who is involved in it, on what aspects and impacts are considered, on how hard the firm challenges itself with the goals and objectives it sets, on the influence

of external incentives and stakeholders? And how sustainable are the EMS goals and commitments themselves across potential changes in management personnel, ownership, market forces, and other forces? Depending on the answers, the EMS procedure offers either a promising approach to more sustainable environmental management, or troubling questions as to how environmental sustainability can be achieved in the emerging global economy.

This paper presents preliminary findings on similarities and differences among the environmental management systems adopted by 50-100 business and government facilities in ten U.S. states, representing both large and small facilities in 10-20 economic sectors, and among the processes used by these facilities to create and implement their EMSs. Data include both general patterns and illustrative case studies. Based on these findings, the paper identifies issues and additional research needs that must be addressed to determine more fully the value of EMSs for advancing environmental sustainability.

Data are drawn from the National Database on Environmental Management Systems, housed at the University of North Carolina at Chapel Hill, which currently is collecting baseline and EMS design data from approximately 100 business and government facilities in ten U.S. states. Over the next several years it will also add update data on environmental, economic, regulatory, and other outcomes for the same facilities at six-month intervals. The database is created and maintained by investigators from UNC-Chapel Hill and the Environmental Law Institute with support from the U.S. Environmental Protection Agency, in cooperation with the facilities themselves as well as with ten U.S. states and the Multi-State Working Group on Environmental Management Systems.