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Paper details

Title The risk of not using the right information for pollution and safety management

Abstract:

Governmental decision making concerning pollution and environmental management is based on questionable assumptions and using unreliable information. Contrary to the intention of sustained development, those decisions risk to commit us to environmental degradation

Despite recognizing that the centralized command and control was the typical regulatory mechanism that led to the massive collapse of the Eastern European economies, most Western governments still use this approach in environmental management. Using instruments like tariffs, taxes, or subsidies, these Western governments are applying to environmental management the same centralized approach that already proved to be ineffective in managing the economy. Those instruments build on the questionable assumption that people can identify a sustainable pollution level and legitimate companies trading among them the "right" to pollute. The concept of ecosystem protection also builds on the questionable assumption that degradation stops at that sustainable level and ecosystems are from then on shielded against further damage

Besides being based on questionable assumptions, centralized command and control can only be exercised when governments decide to bear the implementation costs. Those include the costs associated with mandatory inspections. We use simple mathematical models to understand the difficulties governments go through when choosing those apparently attractive regulatory mechanisms. These models not only support building effective information systems, but also suggest an alternative approach to environmental management

The alternative approach implies managing the environment like a market economy and promoting the use of the Best Available Technologies (BAT). To foster the development of environmental technology, governments must continuously improve existing environmental standards and design action programmes that ban outdated technologies. The only assumption is the public wants a safe environment and is willing to pay for it. Then, the market pressure toward meeting more stringent requirements will foster the emergence of new technologies, better suited to respond to environmental (ecological) needs. And as competitive requirements evolve, the technological level also rises.