

## Precautionary Principle Replaces Physical Science with Social Science Follows Common Fears and Reflects Bias Against Technology

### “IS THE PRECAUTIONARY PRINCIPLE A REJECTION OF THE SCIENTIFIC METHOD AND A FORMULA FOR DOING NOTHING?”

No. **The precautionary principle** does not reject science, but it does rest on the recognition that the *physical sciences do not always provide all the answers, that social sciences and even the humanities are also valid sources of information and decision-making, and that concerns based on common fears are also relevant.* Proportionality is always relevant, but grave harm – “the worst-case scenario” -- must be considered, even if the likelihood of its occurrence seems relatively remote.

*Adherence to the precautionary principle does, in a sense, bias decision-making against innovation by slowing down the process of introducing new technologies,* but this go-slow approach is justified by the realization that new development does not always deliver all that it promises and that change is frequently irreversible. *If new technologies and new activities will, in fact, offer benefits, they can be introduced after meeting the burdens of proof required by the precautionary principle.*

Utilization of the precautionary principle will alter the “factual trigger” that requires precautions to be taken.<sup>1</sup> *Without this principle, those challenging a food additive, for instance, would have to prove that it is toxic, those challenging a new fishing activity would have to prove that it would have a negative impact on a species or*

---

<sup>1</sup> See, e.g., Vern R. Walker, *Some Dangers of Taking Precautions Without Adopting the Precautionary Principle: A Critique of Food Safety Regulation in the United States*, 31 ENVTL. L. REP. 10040 (2001).

*ecosystem, and those challenging a shipment of a hazardous cargo or the construction of a nuclear power plant would have to prove that it is likely to cause actual pollution to the environment. But when the precautionary principle is utilized, the fears that affected human populations have about such activities become sufficient to induce caution and to require those wishing to undertake these initiatives to establish that the activities are safe, or, in appropriate cases, that the benefits outweigh the risks.* Science is not ignored, but its role has changed, and the burden of persuasion is shifted.<sup>2</sup> In fact, the precautionary principle promotes more science, because it requires continuous monitoring as well as research into less-polluting alternatives. *Some have said that the precautionary principle masks irrational fears of technology. But if the fears are irrational, then good science disseminated by those who are developing the technology can calm those fears and persuade the public that the project is sound* (emphasis added).”

See Jon M. Van Dyke, “The Evolution and International Acceptance of the Precautionary Principle, Chap. 15, in *Bringing New Law to Ocean Waters*, D. D. Caron and H. N. Scheiber (eds.), *Bringing New Law to Ocean Waters*, 357-79, at \_\_\_ (© 2004 Martinus Nijhoff Publ.), at: (<http://www.mmc.gov/sound/internationalwrkshp/pdf/vandyke.pdf>); ([http://www.brill.nl/m\\_catalogue\\_sub6\\_id21272.htm](http://www.brill.nl/m_catalogue_sub6_id21272.htm)).

---

<sup>2</sup> *Id.* (“The burden of proof should always be on those who would relax precautions in order to obtain benefits. Moreover, lawmaking procedures affecting safety should place a high priority on transparency and public participation.”).