

BRIEF INTRODUCTION TO THE PRECAUTIONARY PRINCIPLE

ORIGINS, IMPLEMENTATION, CONTROVERSY, & NM APPLICATION

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WARNING!



Many words on following slides!

As legal guidance, words are important



HISTORICAL SOCIO-POLITICAL CONTEXT

- 1950s & 1960s – mounting evidence for toxicity of **DDT**, weakening of bird shells, devastating and persistent environmental impacts, rising concerns about pesticides and environment
- 1962 – Rachel Carson – ***Silent Spring*** – impacts of synthetic pesticides, disingenuous marketing by chemical companies, aerial spraying of private land, and looming environmental disasters from their use, including increasing loss of birds
- 1962-1970 – Illegal **mercury release** into Grassy Narrows → worst environmental poisoning of Canadian History, **Minamata** disease in two First Nations communities in Ontario
- 1978 – **Love Canal** – abandoned Hooker Chemical waste dump leaches to surface now containing residences and a school
- 1979 – **Three-Mile Island**; NE Church Rock Mill Tailings Dam Failure contaminates Puerco
- 1982 – **Dioxin** in soils force evacuation of **Times Beach**, Missouri
- 1984 – **Bhopal**, India, >500,000 exposed to methyl isocyanate following Union Carbide chemical accident

UN CONFERENCE DECLARATIONS

- **1972: Stockholm – UN Conference on the Human Environment**

- Principle 13: In order to achieve a more rational management of resources and thus to improve the environment, States should adopt an ***integrated and coordinated approach to their development planning*** so as to ensure that development is compatible with the need ***to protect and improve environment for the benefit of their population***

- **1982: UN General Assembly Resolution on World Charter for Nature**

- shifted strategies to PP largely due to **inadequacy of science to anticipate harm**

- **1992: UN RIO DECLARATION ON ENVIRONMENT AND DEVELOPMENT**

- Principle 15: In order to protect the environment, the ***precautionary approach*** shall be widely applied by States according to their capabilities. ***Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.***

ESSENTIAL ELEMENTS

- Responsibility of all States to protect the environment,
- ***Guiding Principle in Decisions/Rule-Making: Recognition that all peoples have right to a clean and healthy environment that does not present hazards to their health***
- ***Provides a legal basis for incorporation of societal values and ethics into regulatory process***
- Does not override need for “sound science”, but acknowledges scientific **uncertainty** of hazards should **not be an excuse** for inaction
- Shifts onus of proof to proponent of action rather than recipients of effects
 - But does NOT stop action.... **Zero risk not implied**
- Shifts legal dialogue to proof of no harm *before* action rather than mitigation of proven harm *after* action

WHAT IT IS NOT!

NOT an attempt to

- stifle progress or action
- negate the need for data and science
- attack business or economy

RATHER, an attempt to

- Promote societal well being as a unified and common effort
- Establish *values* as legitimate component of decision-making

In an ideal world, the precautionary principle would provide an additional tool to bridge the gap between communities, government and industry

INTERNATIONAL ADOPTION

Currently: Precautionary principle basis for > 90 international declarations and agreements

-- N indicates crystallization of the precautionary principle into international “customary environmental law”

Can now be found in local environmental law in more than 50 countries including India, Australia, Scandinavian block, Canada, US

- **Ozone** – Vienna 1985; Montreal 1987
 - Precautionary approach to limit and ban ozone depleting chemicals.
- Protection of **North Sea** – 1987 – present OSPAR
 - Expanding to land-based emissions of pollutants that damage marine ecosystem before observing causal link or harm
- Helsinki - 1992
 - control of substances that have **transboundary effects on water systems** without causal link or science confirm – based on potential
- UN Framework Convention on **Climate Change** – 1992
 - adopts precautionary rather than reactive approach necessary throughout
- **Rio Conference on Environment and Development -- 1992**
- UN Convention on **Biodiversity** -- 1994
 - where there is a threat of significant reduction or loss of biological diversity, lack of full scientific certainty should not be used as a reason for postponing measures to avoid or minimize such a threat
- EU (EC) **guiding principle** –2000
 - cost-benefit of action vs no action
- French constitution 2005
 - Added as **guiding principle** for policy development

UN GLOBAL COMPACT

- World's Largest Corporate Sustainability Initiative
 - Led through UN
 - 162 Countries; >21,000 **Businesses** signed on as members
 - Unilever, Mahindra, Woolworth, Novartis, Rio Tinto
- A call to companies to align strategies and operations with universal principles on human rights, labour, environment and anti-corruption , and take actions that advance societal goals
- 2022: 10 principles of Sustainability Invoke the Rio Principles among other Human Rights and Labor Declarations
- [Principle 7](#): Businesses should support a **precautionary approach** to environmental challenges;

*Just Transition: Greening the economy by simultaneously addressing the environmental, social and economic dimensions of sustainable development in a way that is as **fair and inclusive as possible to everyone concerned**, creating decent work opportunities and leaving no one behind. For financial decision-makers, the just transition provides the framework for connecting climate action with the need for an inclusive economy and sustainable development, through a collaborative process involving social dialogue.*

DEVIL IN THE DETAILS

- Basic premise -- common sense -- logical
- No specifics on implementation – interpretation of how employed varies widely
- Determination of “serious risk” “precautionary” “harm” ”values” not consistently agreed on

WINGSPREAD CONFERENCE - 1998

SCIENCE & ENVIRONMENTAL HEALTH NETWORK
NGOS INCLUDING ENVIRONMENTAL DEFENSE FUND, OMB WATCH,
ENVIRONMENTAL RESEARCH FOUNDATION

- “...When an activity **raises threats of harm to human health or the environment**, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically. ***The process of applying the precautionary principle must be open, informed and democratic and must include potentially affected parties.*** It must also involve an **examination of the full range of alternatives**, including no action. In this context the proponent of an activity, rather than the public, should bear the burden of proof.”
- “harm” in general – much broader scope. -- not the “serious or irreversible“ language of 1984 Rio Principle
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- At its core the precautionary principle mandated that even in the face of scientific uncertainty we have an ethical mandate to prevent suffering and harm. (Adding ethics as additional component to science and regulation)

WINGSPREAD – 5 STEPS TO IMPLEMENTATION

- Setting goals for the kind of world we want to live in.
- Heeding early warnings so we can take action in advance of absolute proof of harm.
- Seeking and choosing safer alternatives to harmful activities.
- Reversing the burden of proof so that public health and the environment get the benefit of the doubt when scientific uncertainty.
- Democratic participation and consent of all parties.
 - affected stakeholders and communities have a right to deny or agree to something that could harm their future.

OPPOSITION VIEWS

- Current laws already allow for uncertainty (true for some, not all, sources of uncertainty)
- Discretion in rulings is already allowed in absence of clear scientific data
 - NEPA examination of alternatives including “no action”
- Fears that PP paralyzes decisions and stagnates the status quo → no progress
 - e.g. failure to adopt life saving drug because can't prove safe (may be the opposite, e.g. HIV 1980s)
- Masks “political decisions” such as preserving rural small farms
- No clear evidence any of these concerns warranted

EXAMPLES OFTEN CITED IN US LAW

Not explicit adoption as basis for environmental policy, but US ratified Rio Convention

- TSCA – new substance marketing can be halted if significant exposure or unreasonable risk determined
- FDA testing prior to marketing of new drugs
- NEPA -- evaluation of consequences and comparison of alternatives including no-action
- CWA – goals to restore and maintain chemical physical and biological integrity of Nation's waters.
- OSHA – assure every working man and woman safe and healthful working conditions

CONTRASTS

Precautionary Principle

- Proactive
- Priority for decisions is the right of all to health and a sustainable environment
- Transparency: Decisions include public, business, political stakeholders for input on needs
- Can incorporate monitoring, prevention strategies, for early ID/mitigation of uncertain threats
- Planning to avoid risks – prevent harm
- Burden of **proof of no harm** at beginning of the process: proponent responsibility

Traditional Approach

- Reactive
- Priority is compliance with standards
- Public comment: Policies open for public comment once developed by topic experts
- Monitor to ensure compliance, uncertainty dealt with through safety factors up front
- Assimilative capacity – allow amount of harm to a system can absorb and bounce back from – “minimal or acceptable risk”
- Burden of **proof of harm on** those affected

EXAMPLES: CASE STUDIES

CASE STUDY 1: INDIA SUPREME COURT RULING IN TANNERY CONTAMINATION WITH CHROMIUM

India: Extreme case of conflict between assimilative capacity approach in regulating at emission stage vs. their Constitutional mandate of precautionary principle to protect human health and ecosystem

Discharge of huge volume of untreated effluent from tanneries and other industries onto agricultural fields, road sides, waterways and open lands, and into the river Palar which is the source of water supply to the residents of the area.

Supreme Court ordered special authority vested with all powers to implement precautionary principle to resolve issue, implement a “polluter pays” approach to reverse ecological damages, identify affected families and provide compensation

Created special court “Green Bench” to monitor resolution

Court rule: “Though the leather industry is of vital importance to the country as it generates foreign exchange and provides employment avenues it has no right to destroy the ecology, degrade the environment and pose as a health hazard”. The Court recognized that a balance must be struck between the economy and the environment.

CASE STUDY 2: CITY OF SAN FRANCISCO - 2003

- **“Every San Franciscan has an equal right to a healthy and safe environment.** This requires that our **air, water, land, and food** be of a **sufficiently high standard** that individuals and communities **can live healthy, fulfilling, and dignified lives.** The duty to enhance, protect and preserve San Francisco’s environment rests on the shoulders of government, residents, citizen groups and businesses alike.”
- **Precautionary Principle approach will serve as a policy framework to develop and implement laws for a healthier and more just San Francisco.**
- **Precautionary Principle :** tool to help promote environmentally healthy alternatives while weeding out the negative and often unintended consequences of new technologies using 3 main questions.
- "Is this potentially hazardous activity necessary?"
- "What less hazardous options are available?" and
- "How little damage is possible?"
- Evaluated through full-cost accounting and a participatory process
- **The alternatives assessment :** **public process** because, locally or internationally, the public bears the ecological and health long and short-term consequences of environmental decisions.

CASE STUDY 3: NM COURT OF APPEALS

N.M. MINING ASSN. V. N.M. WATER QUALITY CONTROL COMM. 2007-NMCA-010

(Full Disclosure: Scientific review used as basis was authored by Lewis and team. Lewis was expert witness for NMED)

2002: WQCC revised state groundwater standard for uranium from 5 mg/L to the USEPA Drinking Water Standard of 30 ug/L

Scientific support relied on comprehensive review of literature and health status of affected communities (Lewis et al.)

Basis:

Scientific review of animal and human studies

Determination of communities most affected by mine waste

Determination of high rates of diabetes and kidney disease in populations affected disproportionately by waste exposures (Indigenous & Hispanic)

Based on these uncertainties, a recommendation to lower the standard to 0.007 mg/L was proposed, slightly higher standard of 0.03 mg/L was promulgated to comply with the USEPA Drinking Water standard (MCL) to avoid treatment of discharged water from drinking water sources.

Additional factors: groundwaters in this arid environment have the reasonable foreseeable potential for use as drinking water

90% of NM drink groundwater, 10% of which is sourced through private wells

Statute: "The standards shall at a minimum protect the public health or welfare, enhance the quality of water and serve the purposes of the Water Quality Act."

Ruling: Based on **credible scientific data**, use of approved and **reproducible methodology**, and working on the frontiers of available science, WQCC decision upheld by NM Court of Appeals in Challenge by NMMA and NMOGA (2006)

POSSIBLE OPTIONS FOR IMPLEMENTATION BASED ON NEEDS

- Require consideration of least harm alternatives – not necessary to assume zero risk
- Design Monitoring strategies for early detect of unanticipated problems or community concerns
- Establish process for rapid revision based on new data, early indicators of harm
- Consider community health, multiple sources of contamination, ecosystem status
- Sound science remains at core, as do regulatory standards
- Modification of implementation based on a more public and inclusive process
- NM SB8, January 2022 – accepts more stringent than USEPA within local primacy --
- Precautionary Principle provides legal framework for additional considerations to reduce risk.



THANK YOU!
THOUGHTS?
QUESTIONS?
DISCUSSION?
COMMON GROUND?

