

A response from CIELAP to the Government of Canada's discussion document on the precautionary principle

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Summary

We find that the federal government has chosen to position the precautionary principle in a very narrow way that limits significantly the scope of its application. In so doing, we understand the federal government to be signalling that it has little intention of implementing the precautionary principle in any meaningful way. It is also siding with those who chose to direct the precautionary principle away from its original meaning and is ignoring the emerging body of literature on how to make the precautionary principle meaningful, effective and balanced.

Detailed remarks

In its discussion paper, the federal government poses some questions. We use these as the frame for our response.

1. Is this discussion paper clear in describing the precautionary approach and the guiding principles? Does it provide the right level of guidance? If not, what changes would you suggest to ensure that it captures the "right" principles?

By failing to adopt a more comprehensive conception of the precautionary principle, we presume as a means to limit its scope of application, the government position actually makes the principle more difficult to understand and implement. In our view, the more robust definition of the precautionary principle is the 1998 Wingspread Statement:

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.

Here are a few examples from the federal discussion paper of the way the proposed approach limits understanding and acceptance:

The government position applies precaution only at the risk management stage of the full risk assessment process. Leaving the application of precaution to this stage means that risks are mischaracterized or not foreseen in the development stage (see comments on precautionary science below). They must then be managed, when they could have been avoided or significantly mitigated. Applying precaution when technologies and practices are being conceptualized makes the principle much more useful and ultimately more understandable and acceptable to the public because it will produce more significant results. The public is already highly sceptical of risk management and risk communication as practised by industry and regulators. They rightly

recognize it as an attempt to manage problems once they are created. This is the consequence of implementing precaution only at the risk management stage. So, ultimately, limiting precaution to this stage reduces the public's understanding and acceptance of precaution and the technologies and practices that are screened through a precautionary lens.

The paper places significant weight on identifying society's chosen protection of risk to guide implementation of precaution. This is impossible to determine in the abstract. A series of consultations on the topic would not produce any clear response. Lack of a clear response would engender confusion and frustration. Since it is impossible to determine this chosen level, the federal government would be left free to limit application of the principle.

The irony of this statement is that the government generally states that precaution should be based on sound science. We agree, although we contest the government's conception of soundness. We believe, however, there is a way of exercising soundness that allows governments, in the implementation phase, to also test society's views on appropriate levels of protection (see below and literature on type II errors).

The document confuses uncertainty with complexity. The two often, but not always, go together and they are clearly different phenomena. Governments are generally stymied by complexity, but the reasons for those are larger than uncertainty, and include such issues as unclear legislative authority, administrative structures, human resource policies and budgets. By mixing these two phenomena, the paper creates additional confusion. The government paper should clearly differentiate its struggles with complexity from issues of uncertainty.

2. How do the principles address your particular concerns, interests and field of work in the application of the precautionary approach? How or when might the guidelines affect your area of interest?

The precautionary principle is central to the work of CIELAP. For many years, our research agenda has addressed mechanisms for bringing precaution to Canadian environmental regulation. Our work will continue to flow from the conception and procedural implementation of the precautionary principle described under questions 1 and 3. Should the government implement the limited approach to precaution contained in the discussion paper, much of our work will continue to be critical of government policy and regulation.

3. Would the principles achieve the goal of preventing misuse or abuse (misinterpretation, misapplication) when implementing the precautionary approach?

In our view, what removes arbitrary interpretation, misuse and abuse of the precautionary principle is clear procedural implementation. There are 8 stages to precautionary principle implementation, as elucidated by Barrett and Raffensberger in their paper in the International Journal of Biotechnology. A discussion of these stages and how they would be implemented is much more the right level of guidance, but there is minimal discussion of any of these implementation stages, and the concepts within them, in the government's paper.

1. Set clear goals for the different systems subject to the precautionary principle.

2. Do comparative assessments of different approaches to achieving those goals, and assess within that framework.

3. Where an approach appears to have value, adopt transparent and open processes for evaluation and regulation.

4. Define the parameters of harm in the assessment process:

a. To what extent does risk assessment address the following levels of potential impacts?

- Individuals
- Populations
- Ecosystems

b. To what extent does current risk assessment deal with the extent of harm? The precautionary principle says that when the potential for harm is serious, preventive action must be taken. These are some of the kinds of harms that may result from some approaches and would require preventive action:

- the harm is not reversible -- an irrevocable loss of ecosystem function or biodiversity. Note that if the harm is reversible, this doesn't not provide automatic assurance that the harm is not significant.
- the harm is widespread, extending beyond where a product is applied
- the harm is cumulative
- the harm is involuntary -- those exposed have little opportunity to mitigate or avoid being exposed
- the harm is unfairly distributed -- certain organisms or people are more likely to suffer than others, and the benefits of the product's use are concentrated within a small group
- the harm is portentous -- mitigating it will require additional commercialization of related products causing harm
- the harm is restrictive -- use of the product causing harm forecloses other options that are less likely to generate harm
- the harm is avoidable using other approaches that are readily available.

5. Analyze uncertainty in the scientific data -- use statistical methods to clarify what is uncertain and how much error and bias there is in the data.

6. Use the weight of evidence approach -- do not rely on the science being absolutely definitive, instead look at how different lines of investigation lead to related conclusions.

7. Shift the burden of proof of the safety from the public sector to companies that want to commercialize products.

8. Take precautionary action when many of the elements outlined here reveal there are significant reasons to be concerned.

Note that to implement these stages requires the use of precautionary science. In contrast to the popular, but poorly informed view, the precautionary principle requires implementation of a very robust scientific approach. This precautionary science is dismissed by many scientists and regulators not because it is unsound, but because it is not the science they practice. Precautionary science challenges many of the assumptions of hypothesis setting and of experimental and statistical design that are practiced in much of the regulatory science used today. Precautionary science is already used in pesticide regulation in the USA and Europe.

4. What effect would the guidelines have on your level of acceptance or trust in the decision making processes -- positive, neutral or negative? Why (clarity, understandability, etc.)? If needed, how would you address this?

If the current approach stands, CIELAP will not have any increased trust in the decision making process because it does not significantly advance implementation of precaution.

5. Does this discussion paper adequately balance the various needs of Canadians? If not, how could it establish the right balance?

Everyone is interested in precaution. The balancing of interests comes not in the general elucidation of the concept, but in its procedural implementation. As discussed above, the focus in the discussion paper on minimizing application of the principle, and the absence of discussion of procedural implementation, clearly signals that the government is siding with dominant economic interests that view (uninformedly) precaution as threatening to their economic welfare. This is unfortunate as the experience in places where precaution is implemented more fully than Canada reveals that economic opportunities do not disappear, but rather they shift. For example, the Food Quality Protection Act (1996) in the US has essentially eliminated development of high risk pesticides. Virtually all submissions received from registrants now focus on lower-risk materials. Companies still make profits. They just make them on different products.

Thank you for considering our remarks.