

Actionable knowledge for precautionary risk governance

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PP = evidence-informed action on uncertain risks

- Requires scientifically underpinned grounds for concern, not certainty, nor an exhaustive risk assessment
 (PP ≠ principle of prevention!)
- Who or what gets the benefit of the doubt is a policy choice: should be made explicitly

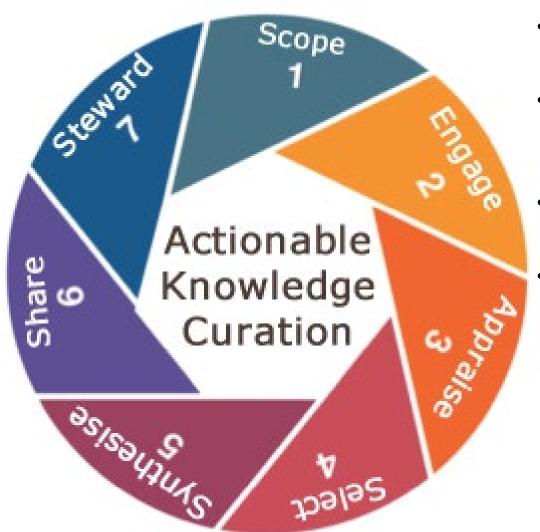
PP not only in risk management!

Risk assessment needs to be well-informed by the PP

- Detect situations that require precautionary action more adequately and timely
- Well-organised and timely collection of actionable knowledge is key for dealing prudently with uncertain risks
- Pluralization of expert knowledge in scientific assessment:

engage wider range of knowledge holders

Actionable knowledge



- Fit for informing decisionmaking and action
- Helps actors implement their intentions and realise their aspirations
- Resonates with the concerns for which it is raised
 - Requires propositions that make explicit the causal processes required to produce action and identification of the circumstances favourable for desirable outcome or for averting an undesirable outcome.

Actionable knowledge for the PP

Explicit and transparent problem scoping

- •What are relevant aspects of the problem?
- Set problem boundaries wide enough to include the concerns of those affected

Includes knowledge on:

- •severity and nature of potential adverse effects
- nature of the uncertainties on risks and proclaimed benefits
- knowledge gaps, known and unknown unknowns
- alternatives

Risk assessment must be open to 'non-standard' knowledge

RECIPES cases showed:

- Blind spots in overly reductionist risk assessment protocols.
- Knowledge that do not fit in such protocols (e.g. end-points not covered by the protocols) is often downplayed, marginalised or ignored.
- Too often, coalitions of concerned scientists and societal actors need to step in and 'break the script' of routinised assessment and management processes to recognise key uncertainties and potential harm.

Further reading

RECIPES Guidance:

https://recipes-project.eu/results/guidance-future-application-precautionary-principle

 Pollinator conservation requires a stronger and broader application of the precautionary principle

https://doi.org/10.1016/j.cois.2021.04.005

 Halting the pollinator crisis requires entomologists to step up and assume their societal responsibilities

https://doi.org/10.1016/j.cois.2021.08.004

The science of actionable knowledge

https://doi.org/10.1016/j.cosust.2020.03.007