New research has examined three different categories of Ecological Risk Assessment (ERA), each with different goals. The researchers find that overlaps between the three assessments could be combined to create a more comprehensive form of ERA, usable by regulators and environmental decision makers.

Expert advice can be crucial for good decision making. This study reviewed how experts are involved in policy, and the results of their involvement, finding that certain involvement processes are more suited to specific types of policy questions, and that more robust evaluative and documenting processes are needed. The researchers propose a framework to identify appropriate consultation methods for specific policy questions.

How best to utilise the expertise and opinions of experts when developing policy is a key issue for decision makers, as their experience, depth of knowledge and judgement are highly valuable for complicated questions, such as setting priorities for research. Yet, how experts are involved in policy development and the outcomes of their involvement has not been documented precisely. This study aimed to understand such expert involvement better, focusing on the methodologies of expert involvement and its potential policy impact.

A systematic review of scientific publications was used to identify relevant papers. A total of 103 papers were identified, including 157 individual studies, which were published in 85 different journals using data from 52 different countries. Most papers reported on a single study using data from one country, and most were related to environmental policy (followed by research in public health, agriculture and food safety).

Qualitative analysis of the articles revealed only a narrow range of methods for expert involvement. Furthermore, the choice of the involvement method was rarely justified, and there was little evidence of evaluation of the expert involvement process or its policy impact. In fact, of all the papers assessed, only 12 evaluated the process of consultation, and less than half provided a critical assessment of the methodologies applied.

Five principal methods were used, either involving one-way (questionnaire and interview) or interactive communication (workshops, focus groups and the Delphi method, in which a panel of experts answers questionnaires in rounds, based on input from the previous round). Experts were consulted on an individual basis using interviews or questionnaires, or as part of groups using workshops or focus groups. The Delphi is a ‘hybridised’ method, as it allows for both individualised and group consultation.

Significantly, the choice of method was generally based on practical reasoning rather than because it was the best fit for the characteristics (e.g. uncertainty) or goal of the policy. Alongside this, the authors also identified limited evaluation of policy impact and a lack of quality control.

The researchers suggest that experts could be involved based on the characteristics of the issue (e.g. how much uncertainty is involved, are experts in agreement?) and the goal of the exercise (e.g. is it to provide decision support, or to gather existing opinions?). As a result, they present an alternative basis for choosing an expert involvement method, based on the policy scenario at hand.

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The suggested methods most likely to deliver the relevant information can be classified according to specific situations:

- **Consensus seeking**: in cases where there is high ambiguity but little uncertainty regarding the potential impacts of a decision, consensus may be needed. Use of a *workshop* is recommended for the free exchange of information and opinions, before reaching consensus, or tolerating differences.

- **Distant consensus seeking**: when consensus is needed but experts cannot meet in person, the use of *teleconferencing* may be appropriate.

- **Consensus seeking and boundary setting**: if the expert opinion is ambiguous and there is uncertainty regarding policy outcome, boundaries should be set to determine when and how information will influence policy. Here, interactive methods such as *workshops* or the *Delphi method* can be useful.

- **Confirmation poll**: where expert legitimisation is needed in situations of low ambiguity and uncertainty, *opinion polling* can be useful, especially when many experts need to be consulted in a short time frame.

- **Anonymised consensus seeking**: in situations where a policy issue is controversial, *anonymised polling* may be appropriate, or *anonymised Delphi*, which enables interactive but anonymous discussion.

- **Vote**: if there is disagreement among experts and resolution is required in a short time frame, *voting* can identify the majority opinion.

These recommendations could improve practices and increase transparency and iterative evaluations of methodologies in policymaking, which may lead to more appropriate priorities for research, as well as increasing the likelihood that outcomes are trusted and accepted by expert and non-specialised stakeholders alike.