Stakeholder engagement in the formulation of review questions

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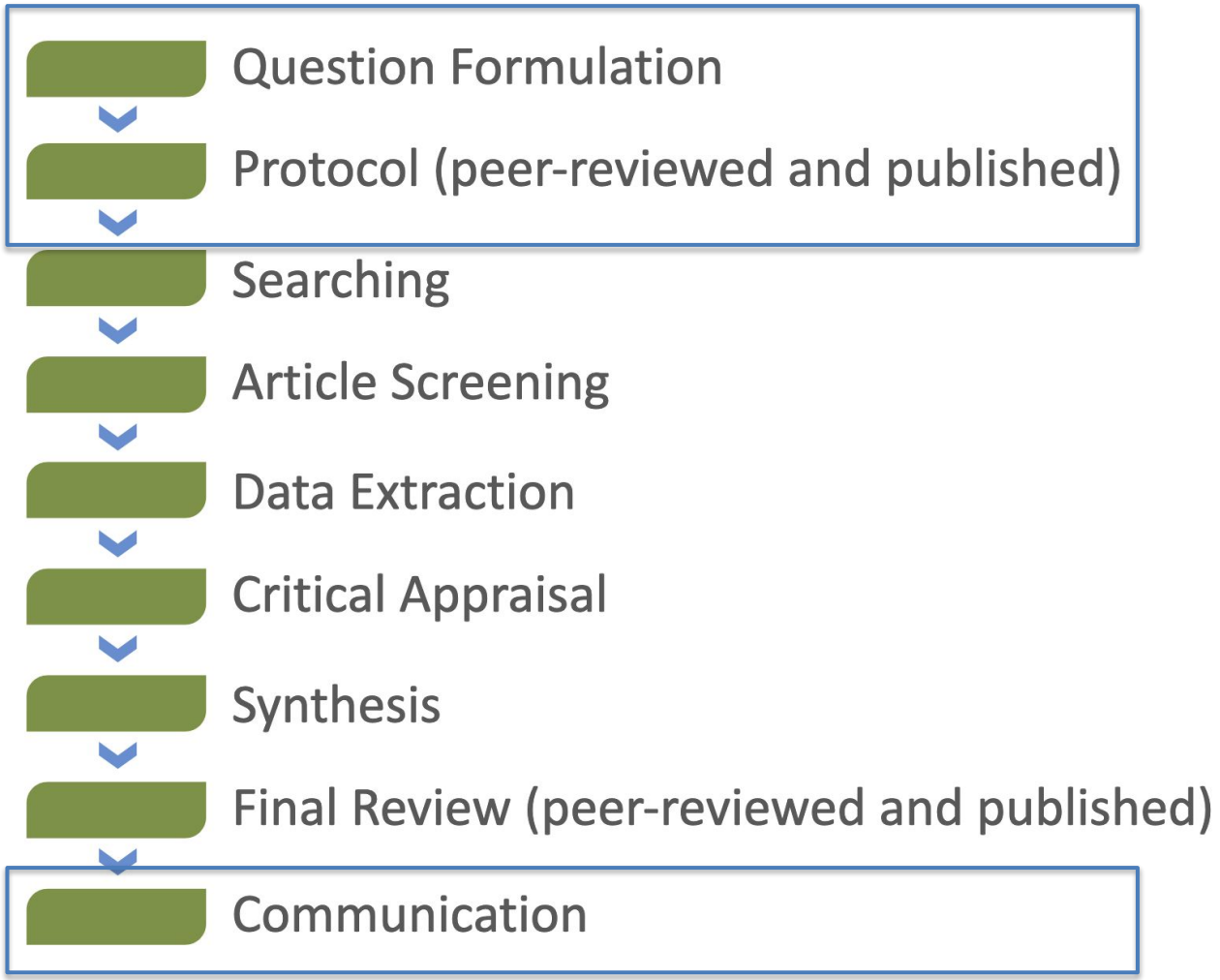
Where to engage stakeholders?

Collaboration for Environmental Evidence



https://environmentalevidence.org/

Stakeholder engagement

Groups involved in a Systematic Review

- **The Review Team** – the group that conducts the review; the authors of the review report.

- **The User Group** – policy or practice groups that identify the need for evidence and might use the outcome of the review in the context of their work.

- **The Stakeholder Group** – all individuals and organisations that might have a stake in the outcome of the review

Defining the stakeholder group

« Any group or individual who is affected by or can affect the acheivement of an organisation's objectives » (Freeman, 1984)

Definition(s)
The client. The commissioner.
People who are either affected by the issue or those who may be able to influence the issue : NGOs, Local authorities, governaments.
Anyone with an interest in the particular subject, or anyone likely to be affected by an eventuel decision.
Those that have a **stake** in the question e.g. policy-makers, acedemics, educators, NGOs…
….

Defining the stakeholder groups' roles/actions

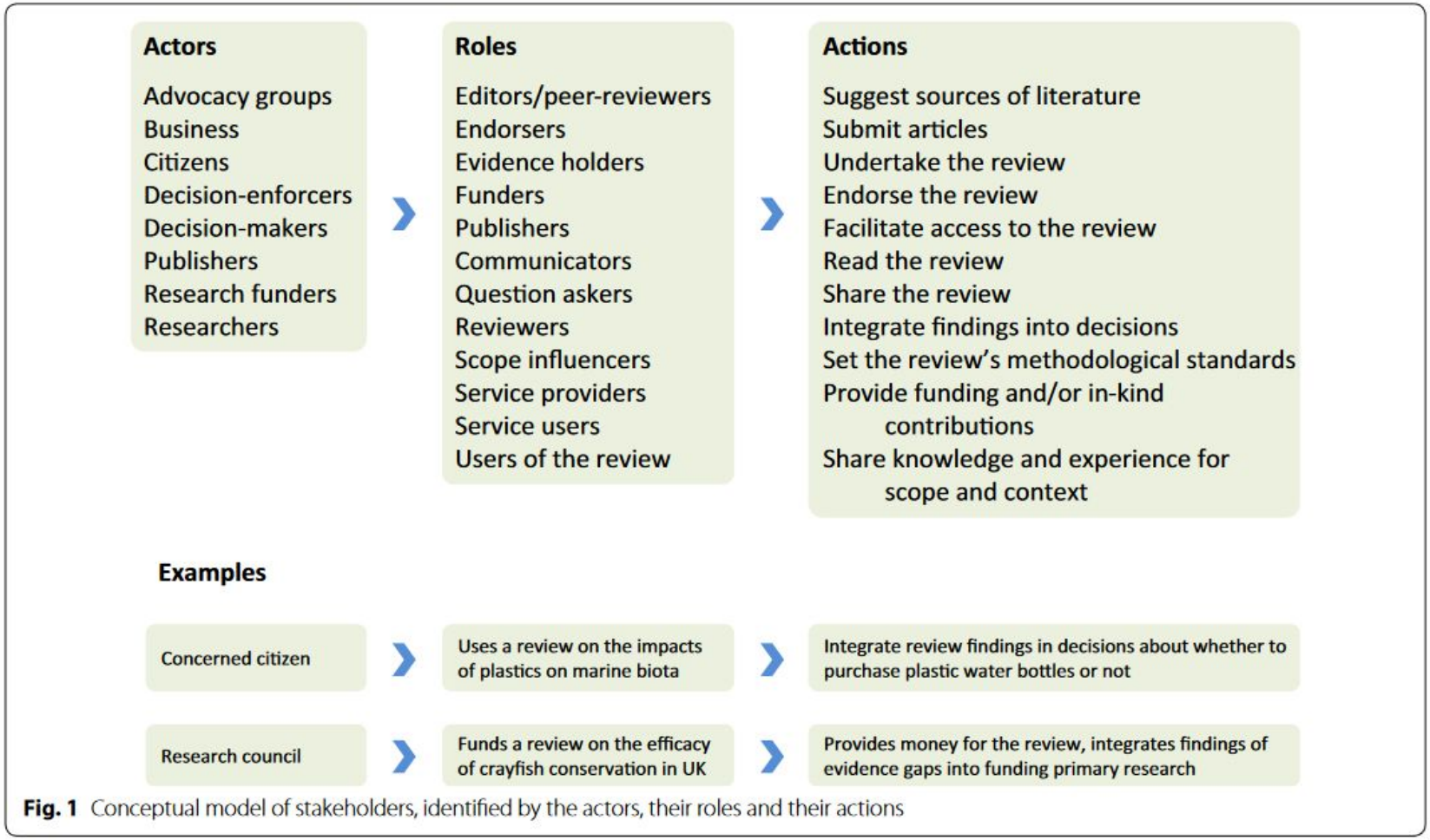


Fig. 1 Conceptual model of stakeholders, identified by the actors, their roles and their actions

Haddaway et al., 2017; https://doi.org/10.1186/s13750-017-0089-8

Why engage stakeholders?

Stakeholder engagement may provide several key benefits to environmental management research projects:

- **Improving the evidence base** (Reed et al., 2008; https://doi.org/10.1890/07-0519.1)
- **Greater public acceptance** (Richards et al., 2004; SERP policy brief no. 1)
- **Higher likelihood of success** (Dougill et al., 2006; https://doi.org/10.1111/j.1477-9552.2006.00051.x)
- **Wider communication of findings** (Reed and Dougill, 2009; https://doi.org/10.1016/j.jaridenv.2009.06.016)
- **Increased likelihood of impact on decision-making** (Deverka et al., 2012; https://doi.org/10.2217/cer.12.7).

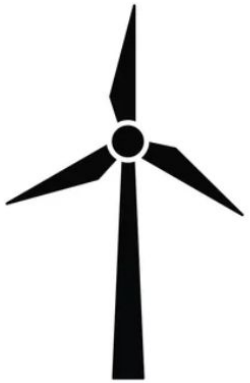
Why engage stakeholders?

For researchers:

- to set the scope and definitions of the review;
- to prioritise review questions;
- to suggest and locate relevant evidence;
- to interpret the review findings or set them in context;
- to improve the clarity and readability of the review report;

Example: set the scope and definitions of the review

Stakeholder group:
- Funders, commissioners, … evidence users



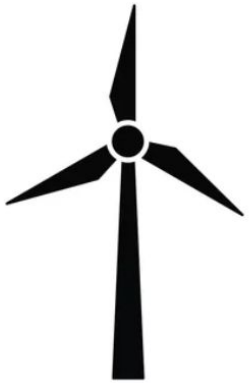
What are the impacts of wind farms on biodiversity in France?

Question elements to define…

Population: ?
Exposure: wind farms
Comparator: ?
Outcomes: ?

Example: set the scope and definitions of the review

Stakeholder group:
- Funders, commissioners, … evidence users

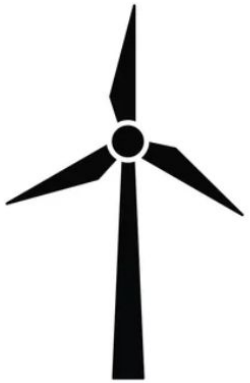


What are the impacts of wind farms on biodiversity in France?

Timeline?

Example: set the scope and definitions of the review

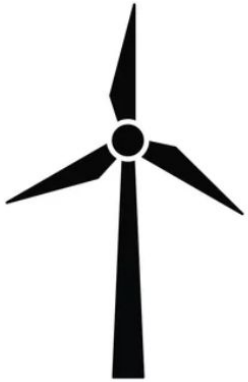
Stakeholder group:
- Funders, commissioners, … evidence users



Example: set the scope and definitions of the review

Stakeholder group :

- Funders, commissioners, … evidence users



Collaboration for Environmental Evidence

PROCEED
WWW.PROCEEDEVIDENCE.INFO

Rapid Review

Title
How effective are existing solutions to mitigate impacts of onshore wind farms on flying vertebrates and invertebrates? A Rapid Review

Citation:
Joseph Langridge, Louise Dupuis, Nicolas Hette-Tronquart, Hervé Jactel, Aurélien Besnard. How effective are existing solutions to mitigate impacts of onshore wind farms on flying vertebrates and invertebrates? A Rapid Review: a Rapid Review. PROCEED-23-00142 Available from: https://www.proceedevidence.info/protocol/view-result?id=142
https://doi.org/10.57808/proceed.2023.15

A typical evidence synthesis pathway with stakeholders

Stakeholders engagement (1)

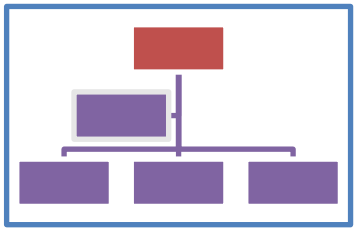
Knowledge needs

Stakeholders engagement (2)

Prioritise needs

specific

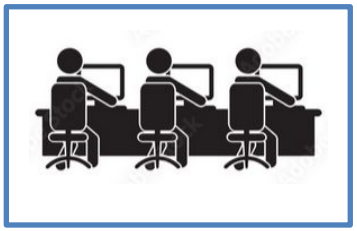
broad

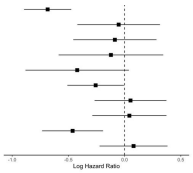


Question Formulation

Protocol (peer-reviewed and published)

Undertake review





Searching

Article Screening

Data Extraction

Critical Appraisal

Draft report

Synthesis

Stakeholders engagement (3)

Final report

Synthesis

Final Review (peer-reviewed and published)

Communication

13

Land *et al.* 2017. *Environ Evid* . https://doi.org/10.1186/s13750-017-0104-0

Question setting

Why invest time in question-setting?

Framing and prioritising review questions

- Decide on the question that is of **greatest interest** (stakeholders, policymakers *etc.)*
- Maximise **cost effectiveness** - efficient use of time and resources
- Minimise **confusion** caused by inappropriate/vague phrasing

Guidelines and Standards for Evidence Synthesis in Environmental Management

Collaboration for Environmental Evidence

Section 2

Identifying the need for evidence, determining the Evidence Synthesis type, and establishing a Review Team

https://environmentalevidence.org/information-for-authors/2-need-for-evidence-synthesis-type-and-review-team/

Prioritising “systematic reviewable” questions

When is it appropriate?

When there is a need:

- to provide an **objective answer (minimize bias)** and **enhance precision** by including all the relevant evidence.
- to address contradictory or controversy across the evidence.
- when it is unclear which factors influence effectiveness of action/reliability of the evidence (effect modifiers, confounding variables, bias).

When is not appropriate?

When the question is:

- poorly defined or too complex.
- too simple (e.g. has species x been recorded in region y).
- not attractive to stakeholders.
- lacking quality evidence and/or exposure of a knowledge gaps will not be valued.

How to formulate a review question?

When you formulate a review question, you are effectively creating a **formula** that does several things:

- Focus the review question by identifying the different components or concepts.
- Define the concepts that will be used when performing a complex literature search.
- Ascertain which articles best address the chosen concepts (*pre-scoping*)
  - Determine if primary studies found address the components of the overriding question.

Guidelines and Standards for Evidence Synthesis in Environmental Management

Collaboration for Environmental Evidence

Section 3

Planning a CEE Evidence Synthesis

https://environmentalevidence.org/information-for-authors/3-planning-a-cee-evidence-synthesis/

How to formulate a review question?

Common question types:

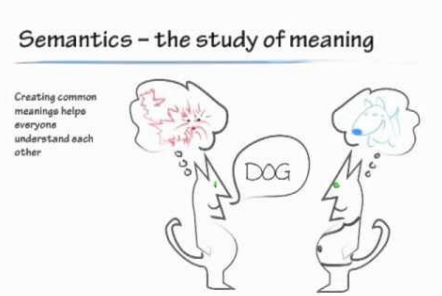
From health questions primarily concerned with **“How effective is”** to environmental questions resembling :

- “What are the impacts of…”
- “What is the evidence on...”
- “What factors influence...”
- “What are the effects of”....

How to formulate a review question?

Correctly framing the question helps to:

- Clarify the semantics, minimize misunderstandings
- Clarify the perimeter of the study (scope, scale)
- Ensure transparency
- Establish the “foundation” elements of the entire systematic review.



How to formulate a review question?

Applying the PICO/PECO formulation		
	…for an intervention approach	**…for an exposition approach**
Population (P)	*The study unit* on which we measure the effect/impact of the intervention.	*The study unit* on which we measure the effect/impact of the exposure.
Intervention ou Exposition (I/E)	The practiced *Intervention* itself having an effect on the population.	What the population is exposed to.
Comparator (C)	What is the effect of the intervention being compared to (control vs. intervention)?	What are we comparing the effect of the exposure (control) to?
Outcomes (0)	What indicator/metric is being measured in order to demonstrate an effect.	What indicator/metric is being measured in order to demonstrate an effect.
Context (C /T)	In what context (geographical and/or temporal)?	In what context (geographical and/or temporal)?

How to formulate a review question?

From broad to specific questions:

Question	Key elements	Question type
What is the impact of roads on wildlife?	None specified other than roads (vague), wildlife (vague) and impact (vague)	Open-framed (possible for Systematic Mapping but **unsuitable for Systematic Review/meta-analysis**)
What is the impact of motorways on populations of endemic bird species in Europe?	Motorways (=exposure), European endemic bird species (=population); but comparator and outcome not specified	Open-framed (suitable for Systematic Mapping but **unsuitable for Systematic Review/meta-analysis**)
What is the impact of habitats containing motorways on the breeding success of endemic European bird species, as compared to habitats without motorways?	Motorways (=exposure), no motorways (=comparator), European endemic bird species (=population), breeding success (=outcome)	Closed-framed (**suitable for Systematic Mapping and possible for Systematic Review/meta-analysis**)

Some other examples…

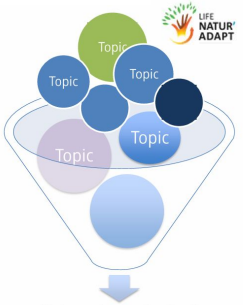
Question types – PICO / PECO :

Effect of intervention/exposure:

- **Often a quantitative approach**

P - Population
I – Intervention
C – Comparator
O - Outcome(s)

e.g. Q1 : What is the impact of abandoning forest management compared to continuing management on forest biodiversity?



Chosen topic


Contents lists available at ScienceDirect

Biological Conservation

journal homepage: www.elsevier.com/locate/biocon

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Review

Biodiversity responses to forest management abandonment in boreal and temperate forest ecosystems: A meta-analysis reveals an interactive effect of time since abandonment and climate

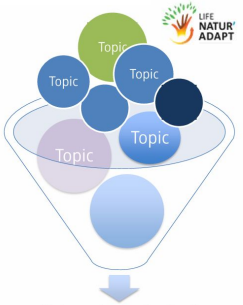
Joseph Langridge[a,b,*], Sylvain Delabye[c,d,e], Olivier Gilg[f,g], Yoan Paillet[h], Yorick Reyjol[a], Romain Sordello[a], Julien Touroult[a], Frédéric Gosselin[c]

Some other examples…

Question types – PIO / **C**

Effect of intervention/exposure:

- **Often a qualitative approach**



Chosen topic

P – Population
I – Intervention
O - Outcome(s)
C- Context

e.g. What is the existing evidence on the outcomes of wildlife conservation-translocations in protected areas?

Langridge *et al. Environ Evid* (2021) 10:29
https://doi.org/10.1186/s13750-021-00236-w

Environmental Evidence

SYSTEMATIC MAP Open Access

Existing evidence on the outcomes of wildlife translocations in protected areas: a systematic map

Joseph Langridge, Romain Sordello* and Yorick Reyjol