

# The known knowns and known unknowns: A database of evidence gaps and clusters in environmental management

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Policy and practice decisions in environmental management should be based on the best available evidence. Better use of evidence in decision making can improve effectiveness of conservation interventions, avoid ineffective actions and justify spending of limited conservation funding. However, there is a problem when research evidence on a specific topic does not exist or if available evidence is insufficient or too scattered to inform environmental policy and practice. *Evidence gaps* are the areas in the evidence base with little or no evidence, and *evidence clusters* are subsets of the evidence base where sufficient research evidence exists to allow full synthesis. Whilst evidence syntheses identify evidence gaps and clusters, there is as yet no systematic effort to collate them to better focus primary research efforts or support funding decisions.

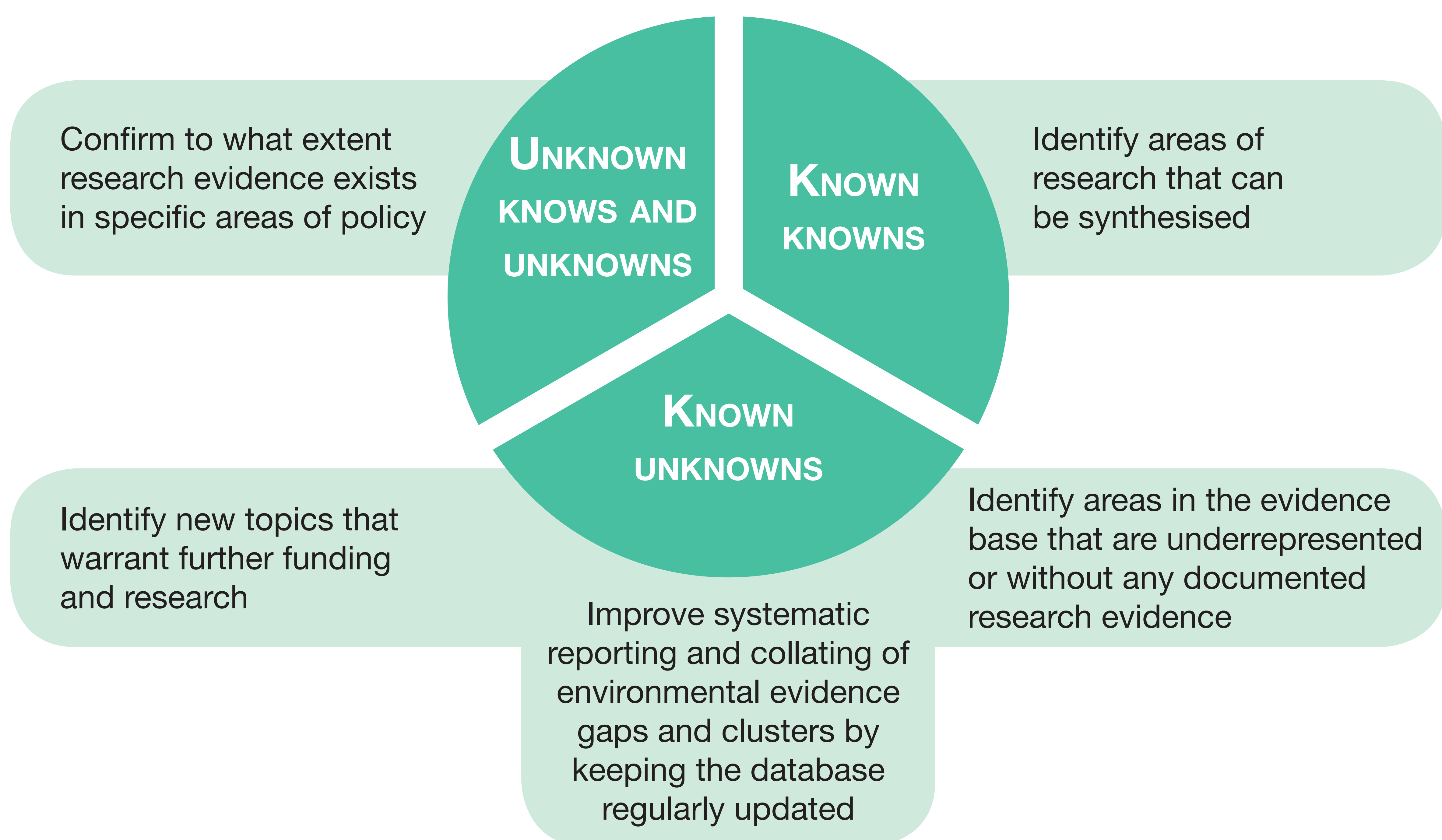
## Objectives

The aim of this work is to collate evidence gaps and clusters from systematic maps<sup>1</sup>, and to produce a first edition of searchable database of evidence gaps and clusters across environmental management. We aim for this database to be primarily used by funders, researchers, reviewers and decision makers in environmental policy and practice.

## Methods

We searched the official Collaboration for Environmental Evidence (CEE) journal *Environmental Evidence* ([www.environmentalevidencejournal.org](http://www.environmentalevidencejournal.org)) for all CEE-registered systematic maps published. They were examined for evidence gaps by extracting any suggestions for topics needing further research, and for evidence clusters by extracting references to suggested full systematic review topics or questions.

## Benefits of collating evidence gaps and clusters



## Results

The database contains over 50 evidence gaps and 39 evidence clusters collated from all 13 systematic maps in following broad subject areas: forestry, fisheries, agriculture, and ecological, social and economic aspects of biodiversity conservation. Four maps could not identify any evidence clusters as evidence base on their subjects was too limited, but they highlighted several gaps and provided recommendations for more primary research.

1. James, K.L., Randall, N.P., & Haddaway, N.R. (2016). A methodology for systematic mapping in environmental sciences. *Environmental Evidence*, 5(1).