

Systematic Map Question Formulation

Practical Exercise 1

Systematic map questions are typically broader than systematic reviews, but the topic must still be well defined and able to be broken down into key elements. In this exercise, take some time to read the following questions and judge whether you think they may be amenable to systematic mapping or not. Justify your reasoning in the table below:

Question	Appropriate for SM?	Justification
What evidence exists on the impacts of farming on greenhouse gas emissions in temperate regions?	Possibly (yes)	This question is phrased appropriately for systematic mapping. Although the evidence base on greenhouse gas emissions and farming is extensive, this map focuses on temperate regions, and (providing 'farming' was well defined) this would be a suitable question for systematic mapping.
What do we know about antimicrobial resistance?	Probably not	Although this question is phrased appropriately, the evidence base would probably be too extensive for a systematic map to be feasible. There are no geographical or population limits, and the topic of antimicrobial resistance is a very broad one. It could be further refined by specifying in a particular context (e.g. in hospitals or rivers), but the evidence base otherwise would be too broad and interdisciplinary.
Are farmer training schools effective in increasing the uptake of organic fertiliser in West Africa?	Possibly	This question is not phrased appropriately for a systematic map, since it asks about effectiveness. However, if mapping of the evidence (and not full synthesis of study findings) is a suitable end result, this could be an appropriate topic for systematic mapping, since the key elements are fairly well defined. It may be better suited to a systematic review, however.
What is the species range of the crayfish <i>Austropotamobius pallipes</i> in Europe?	No	Systematic mapping probably isn't appropriate here – species presence data are well curated in Europe, particularly for endangered species. But SM is typically used to build on similar questions in primary studies – no primary study would have looked at this in a way that would make synthesis useful.
What contribution do forests make to poverty alleviation?	Possibly (yes)	This question might not be suitable as a question for a systematic map, since it asks about outcomes (contributions) rather than what we know. However, this is common with systematic maps, and does not necessarily mean that the map is unfeasible if study findings are not in fact synthesised as it implies. Although this sounds like a really broad question, this was in fact the subject of a recent systematic map . It would likely (and indeed was) a large body of work, with the final map database cataloguing over 1000 primary studies, but it was feasible.