

Section / sub-section	Topic	Description	Further	Checklist/Meta-data	Author response	Comments
Title	Title	The title must indicate that it is a systematic map protocol, and must indicate if it is an update/amendment: e.g. "A systematic map	The title should normally be the same or very	Meta-data	Technologies for recovery and reuse of plant nutrients from human excreta and domestic wastewater: a protocol for a systematic map and living evidence platform	
Type of review	Type of review	Select one of the following types of review:	See CEE Guidance	Meta-data	systematic map	
Authors contacts	Authors	The full names, institutional addresses, and		Checklist	Yes	
Abstract	Structured	Abstract must not exceed 350 words and must		Checklist	Yes	
Background	Background	Describe the rationale for the review in the	A theory of	Checklist	Yes	
Stakeholder	Stakeholder	The planned/actual role of stakeholders		Checklist	Yes	
Objective of the	Objective	Describe the primary question and secondary	The primary	Checklist	Yes	
	Definitions of the question components	Break down and summarise question key elements e.g. population, intervention(s)/exposure(s), comparator(s), and outcome(s).	For other question types see [4,5]	Meta-data	•Population(s): Systems that manage human excreta (i.e., urine and faeces), streams containing human excreta (e.g., yellowwater, brownwater, blackwater, domestic and municipal wastewater), or residues and products that are derived from these streams (e.g., digestate, faecal or sewage sludge, treated effluent). •Intervention(s): Practices and technologies undertaken for the purpose of recovering plant nutrients, including organic matter. •Outcome(s): Recovered product containing plant nutrients (with or without organic matter) suitable for reuse in agriculture, or to produce fertilizers.	
Methods						
Searches	Search		Details regarding	Checklist	Yes	
	Search string	Provide Boolean-style full search string and state the platform for which the string is formatted (e.g. Web of Science format)		Meta-data	(WASH OR sanitation OR watsan OR ecosan OR toilet* OR latrine* OR urinal* OR urine OR feces OR faeces OR excreta OR excrement* OR "human waste" OR "human manure" OR humanure OR "night soil" OR night-soil OR yellowwater OR "yellow water" OR brownwater OR "brown water" OR blackwater OR "black water" OR "faecal sludge" OR "fecal sludge" OR septage OR sewage OR sewerage OR wastewater OR "waste water" OR digestate* OR effluent* OR sludge OR biosolid*) AND (recover* OR *circul* OR reus* OR recycl* OR fertili* OR fertigat* OR conditioner* OR amendment* OR agricultur* OR "land application") AND (organic* OR nutrient* OR biosolid OR nitrogen OR urea OR ammonia OR ammonium OR phosphorus OR phosphorous OR phosphate OR phosphoric OR potassium OR potash OR fertili* OR *char OR *compost OR ash* OR biomass OR struvite OR vivianite OR worm*)	Web of Science
	Languages –	List languages to be used in bibliographic		Meta-data	English	
	Languages –	List languages to be used in organizational		Meta-data	English	
	Bibliographic	Provide the number of bibliographic databases		Meta-data	4	
	Web – based	Provide the number of web – based search		Meta-data	1	
	Organisational websites	Provide the number of organisational websites to be searched.		Meta-data	0	No organisational websites will be searched, rationale in the protocol
	Estimating the	Describe the process by which the		Checklist	Yes	
	Search update	Describe any plans to update the searches during the conduct of the review.	Optional. A search update is good practice if	Checklist	Yes	Methods for a living mode explained in the protocol
Article screening and	Screening	Describe the methodology for screening		Checklist	Yes	
	Consistency	Describe clearly the process for checking		Checklist	Yes	
	Inclusion	Describe the inclusion criteria used to assess		Checklist	Yes	
	Reasons for	State that you will provide a list of articles		Checklist	Yes	
Critical appraisal	Critical	Describe here the method you propose for	Optional	Checklist	n/a	
	Critical	Describe how the information from critical	Optional	Checklist	n/a	
	Consistency	Describe how repeatability of critical appraisal	Optional	Checklist	n/a	
Data extraction	Meta-data	Describe the method for meta-data extraction		Checklist	Yes	
Data synthesis and	Narrative	Describe methods to be used for narratively	Vote-counting	Checklist	Yes	
	Knowledge	Describe the methods to be used to identify		Checklist	Yes	
	Demonstratin	Describe the role of systematic reviewers (who	Reviewers who	Checklist	Yes	
Declarations	Competing inte	Describe of any financial or non-financial		Checklist	Yes	

References

- [1] James, K.L., Randall, N.P. and Haddaway, N.R., 2016. A methodology for systematic mapping in environmental sciences. *Environmental Evidence*, 5(1), p.7.
- [2] Bayliss, H.R., Haddaway, N.R., Eales, J., Frampton, G.K. and James, K.L., 2016. Updating and amending systematic reviews and systematic maps in environmental management. *Environmental Evidence*, 5(1), p.20.
- [3] Haddaway, N.R., Kohl, C., da Silva, N.R., Schiemann, J., Spök, A., Stewart, R., Sweet, J.B. and Wilhelm, R., 2017. A framework for stakeholder engagement during systematic reviews and maps in environmental management. *Environmental Evidence*, 6 (1), p.11.
- [4] Collaboration for Environmental Evidence. 2018. Guidelines and Standards for Evidence synthesis in Environmental Management. Version 5.0. www.environmentalevidence.org/information-for-authors.
- [5] Leeds Institute of Health Sciences. https://medhealth.leeds.ac.uk/info/639/information_specialists/1500/search_concept_tools. Accessed 12/11/2017.