What are the environmental impacts of policy responses to the Covid-19 pandemic? A systematic evidence map.



Jashika Nirmalan, Dr Olwenn V Martin

Backgroun

In an attempt to fight the coronavirus pandemic and the growing numbers of deaths, there's been a number of covid related restrictions worldwide. For example, the closure of schools and workplaces, the cancellation of public events and public gatherings, stay-at-home requirements and face covering policies. There has also been public transport closures and travel bans both internal and international.



These restrictions have greatly reduced COVID-19 cases but also impacted the environment in both detrimental and beneficial ways.



What is the aim of this

study?

The aim of this study is to analyse the evidence to evaluate the strength of current evidence and identify critical data gaps and use this information to recommend needs for future academic research and green recovery policies.



Preliminary Findings

A considerable amount of literature on the environmental impacts of Covid-related restrictions has been published in a very short time (621 eligible studies after title-abstract screening, see Figure 2).

The vast majority of the studies are concerned with reduced air pollution due to travel bans, a positive impact of the pandemic.

Some other environmental impacts studied to date include noise, light and water pollution, single-use plastic waste, incidence of forest fires and deforestation, biodiversity and conservation.



What have we done so

far?

After devising the PICO statement (Table 1), we piloted and designed a literature search strategy combining 49 search terms (Figure 1) and performed searches in PubMed, Web of Science and Scopus.

We completed a consistency check (Kappa = 0.47) to clarify eligibility criteria before proceeding to complete title and abstract screening with the help of the open-source CADIMA evidence synthesis management software.

We are currently completing a consistency check and screening of the full text of included studies.



Table 1. PICO statement

ironmental impacts of responses to

or gender

s, e.g., schools' closure, curfews, social asks, restricted travel.

oandemic began

d) changes related to environmental ices, e.g., air, water, greenhouse gases, noise, ity.

13073 records identified through database searching

9604 records after duplicate removal

9604 records screened
8983 records





Figure 2. Flow diagram





What will we do

next?

After the full-text screening, the main characteristics of each study will be extracted from eligible studies. This will be used to create interactive visualisations of the database (using Tableau software) that will be made publicly available.

