

Mapping the Public Participation Ecosystem in Climate Resilience Studies:

A Critical Reflection on the Contemporary Literature



01. context and problem definition.

«a bottom-up way of thinking about adaptation that aims to promote a system's capability of coping with disturbances and surprises» «Wardekker et al., 2010»
 «a set of actions that encourages practitioners to consider innovation and change to aid recovery from stresses and shocks» «Tyler and Moench, 2012»
 «to withstand climate change stresses, to respond effectively to climate-related hazards, and to recover quickly from residual negative impacts» «Henstra, 2012»

[climate resilience]

- + climate-proof and sustainable living environment
- + resilient urban spaces by providing climate-responsive services and amenities
- + providing holistic (tackle multiple problems) perspectives

(?)ensuring that the community is truly involved in the process

02. research question.

What are the current debates on climate resilience and public participation in the contemporary literature?

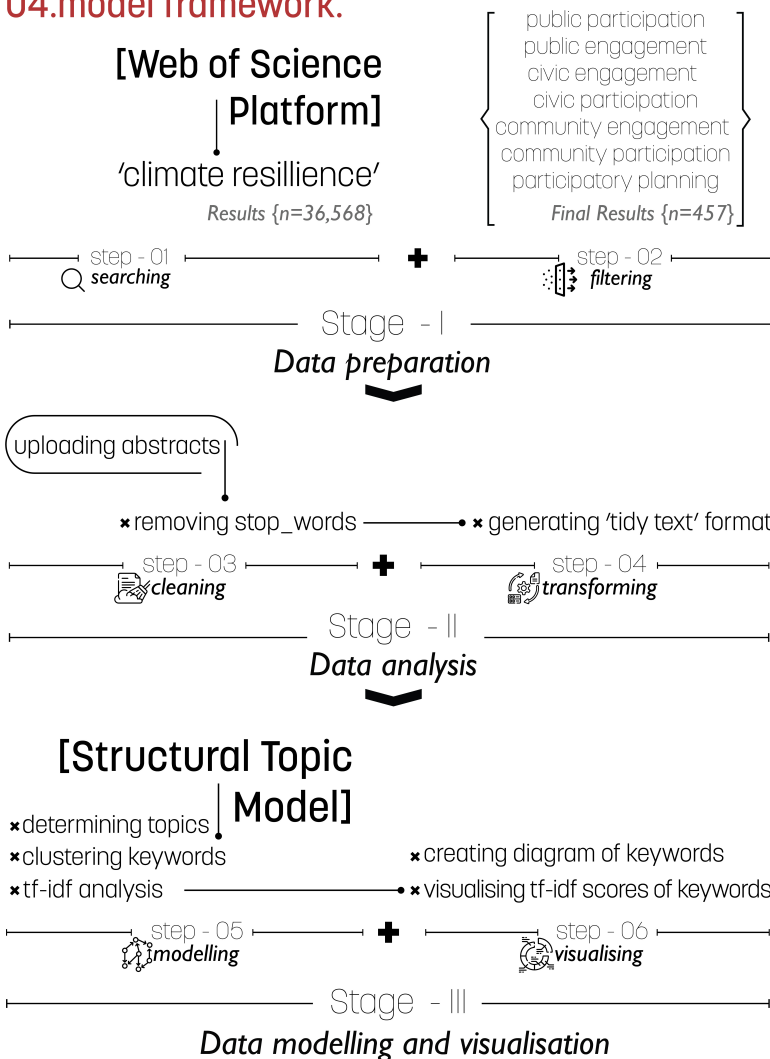
03. methodology.

topic modelling*



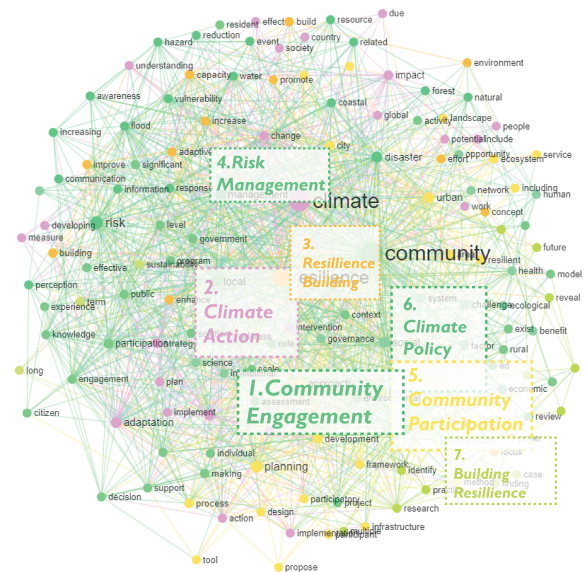
* a type of statistical modelling that uses unsupervised machine learning to identify clusters or groups of similar words within a body of text

04. model framework.



05. model results.

05.01. mapping of the most-influential topics



Main Topics

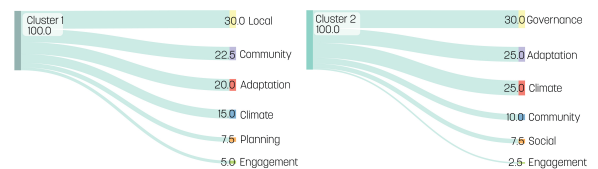
1. Community Engagement	5. Community Participation
29% 34: community local base	8% 22: planning urban approach
2. Climate Action	6. Climate Policy
27% 25: climate adaptation policy	4% 16: social challenge factor
3. Resilience Building	7. Building Resilience
17% 15: resilience build capacity	4%
4. Risk Management	
11% 21: risk disaster management	

05.02 examples of tf-idf scores [normalised].

Term Frequency (TF): How often a particular word appears in a single document.

Inverse Document Frequency (IDF): How common the word is across all documents in the collection.

By multiplying these factors, tf-idf assigns a score to each word in each document. Words that are frequent within a specific document (high TF) but rare overall (high IDF) get high tf-idf scores. These words are likely to be particularly relevant to the specific document's topic.



06. conclusions.

The poster illustrates the potential of topic modelling in utilising literature review studies and highlights key themes driving the current discussions on climate resilience and public participation.

The primary themes identified as **community engagement, climate action, resilience building, risk management, community participation, climate policy, and building resilience.** The next phase of the research will operationalize these key areas to find an answer to the following research question: "What are the components of community engagement in the discussions of climate resilience?"



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