



Literature Hub—Climate and Health Map

User Manual

lithub.pik-potsdam.de

March 2026

Table of Contents

Introduction.....	1
Panel 1: Filters.....	3
Group Controls.....	4
Publication Years.....	5
Groups.....	5
Full-text Search.....	5
Panel 2: Scatterplot.....	7
Panel 3: Geographic Map.....	9
Panel 4: Label Correlation.....	10
Panel 5: Results.....	11
Additional Elements.....	12
Worked Example.....	13

Introduction

The Climate and Health Map (https://lithub.pik-potsdam.de/#/project/healthmap_2026) is an interactive platform that allows users to access a living map of the literature on climate and health. The abstracts of more than 62,000 scholarly works from OpenAlex were coded using topic models and transformer-based models.

Its interface consists of five panels under the default Explorer tab: filters, scatterplot, geographic map, label correlation, and results (Fig. 1; Table 1). Each of these panels can be shown or hidden at any time using the  icon on that panel's header.

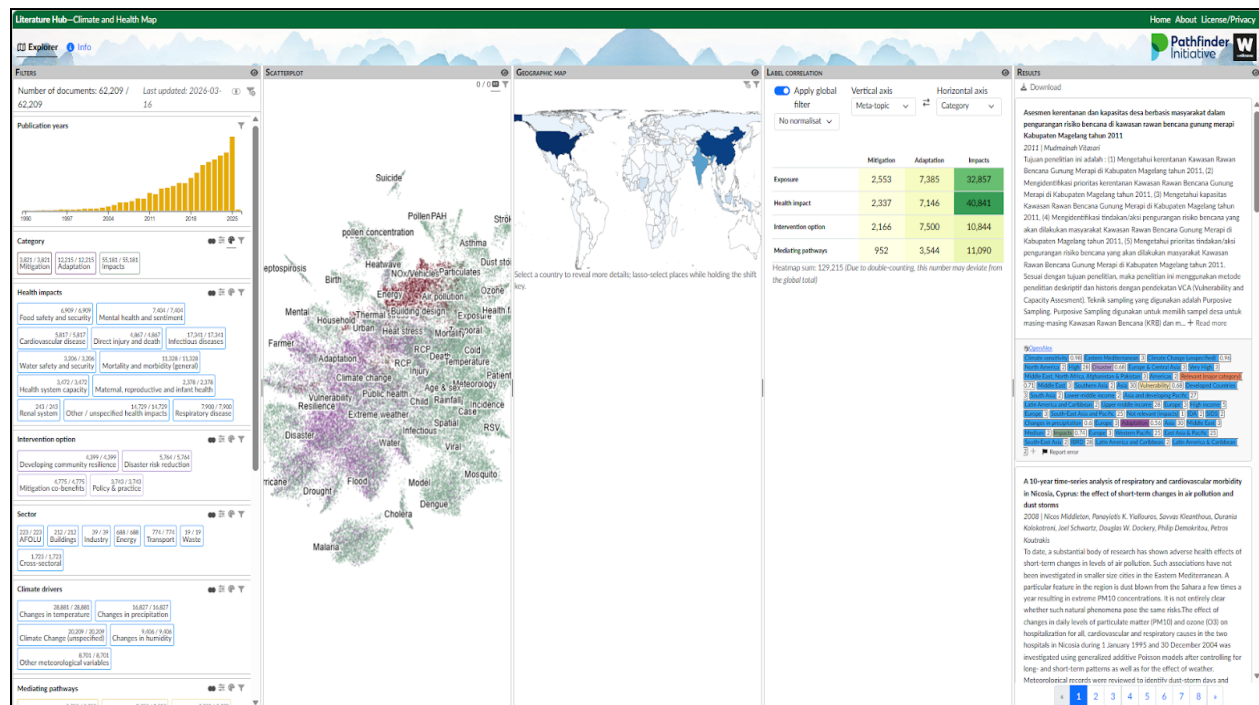


Figure 1: The Climate and Health Map interface

Table 1: Overview of the five panels in the Explorer tab

Panel	Position	Purpose
Filters	Left	Enables exploration of the literature and identification of relevant subsets according to the research question.
Scatterplot	Centre-left (alternate view)	Provides a semantic map of records.
Geographic Map	Centre (alternate view)	Displays research that matches the filters on a geographic map.
Label Correlation	Centre-right	Provides record counts for two-dimensional combinations of topic categories.
Results	Right	Provides abstracts, classifier scores, access links, and download options.

Panel 1: Filters

The filter panel contains groups of labels that allow the database to be narrowed to a specific subset of literature (Fig. 2). By default, no particular label is selected and all records in the database are displayed. Some labels, such as the ones for category, are colour-coded. In addition, each label displays a matched/total count.

A record may be classified under multiple labels within a group, for example, a study may look into both adaptation and impacts. At the same, a record may not be classified under any of the group labels, for example, if an abstract does not specify a geographic location.

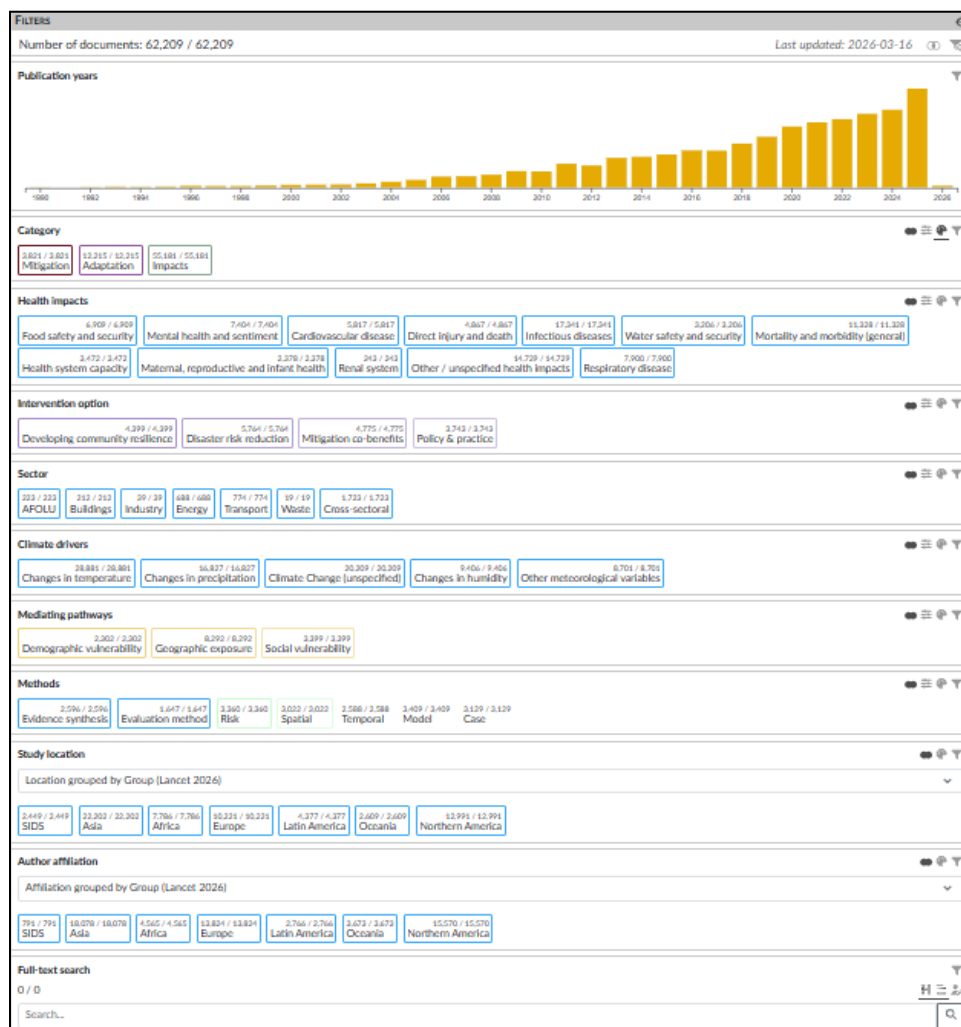


Figure 2: The Filters panel

Group Controls

Most of the filter groups have four icons on their headers: within-group intersection/union (AND/OR) toggle, set minimum label score, use in map colour, toggle group filter (Fig. 3).



Figure 3: The four icons in the group headers

Within-group intersection union (AND/OR) toggle: This controls how the selected labels within a group are combined; think of it as a set union or intersection. In the default union/OR mode (), a record matches at least one of the selected labels while in the intersection/AND mode (), it must match all of them simultaneously.

Set minimum label score: The sliders icon () allows the minimum confidence threshold for the group to be adjusted from the default value of 0.5. The range is 0 to 1, with 0 and 1 values only possible for human annotations. Raising the minimum label score will narrow results to records the model classified with higher confidence.

Use in map colour: The palette icon () changes the dots in the scatterplot to the group's colour scheme. For example, selecting the palette button for the category group will apply three colours to the scatterplot. Only one group can determine the map colour at a time.

Toggle group filter: The funnel icon () switches all selected labels in the group on or off simultaneously. This will affect the record count, scatterplot, and results, without having to deselect each label individually.

Global AND/OR toggle: At the top of the filter panel, is a second AND/OR toggle that operates across all groups (Fig. 4) . While the within-group toggle controls logic within a single group, this global toggle controls how groups interact with each other. In the default intersection/AND mode, a record must satisfy all active groups simultaneously while in the union/OR mode, a record only needs to satisfy at least one active group.

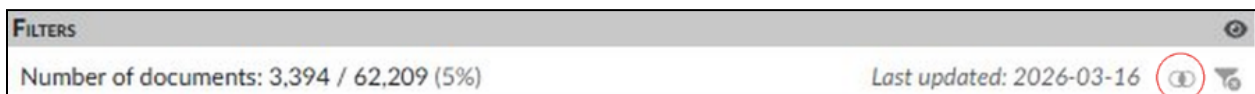


Figure 4: Global AND/OR toggle (circled in red)

Publication Years

The bar chart at the top of the filter panel shows how many matching records were published in a selected year (Fig. 5), along with information on the cumulative annual growth rate (CAGR). To select a year range, click and drag across bars; the label counts, the scatterplot, as well as the results will update accordingly. To clear the year filter, click on any unselected year.

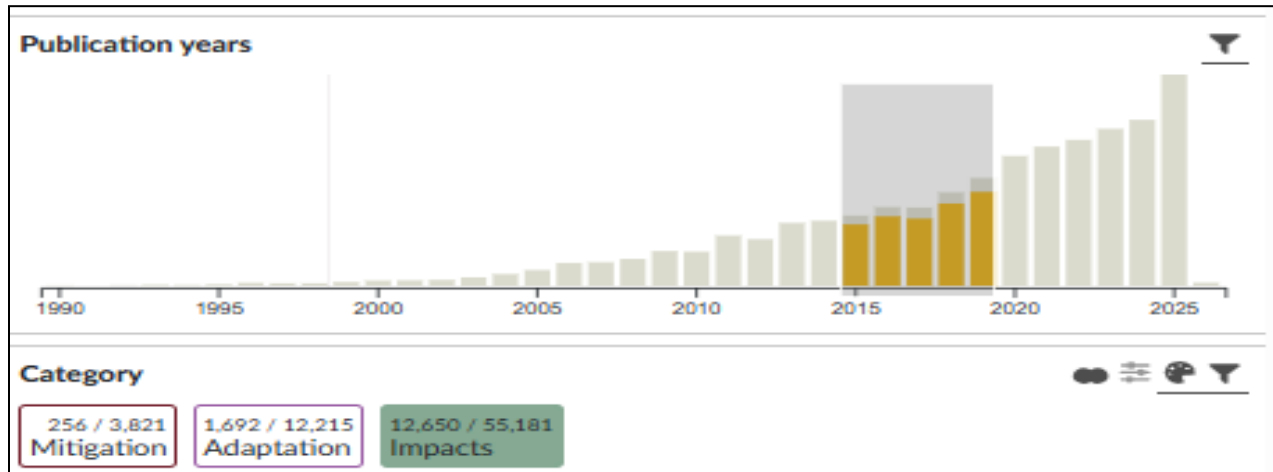


Figure 5: Number of impact studies (dark yellow) relative to total publications (grey), 2015-2019

Groups

Category is one of the most primary ways of filtering records. Each record is classified into at least one of three categories: mitigation, adaptation, or impacts (Fig. 6). The border colour of each label corresponds to its respective colour in the scatterplot when the category colour palette is selected.



Figure 6: Category filter

It is also possible to filter records by **health impacts, intervention option, sector, climates drivers, mediation pathways, methods, study location** and **location of authors' affiliations**. The dropdown menus of the last two groups offer seven options for grouping these locations. As mentioned before, not every record can necessarily be classified into one of these categories, for example, when no geographic location is specified in an abstract or when a country does not have a Human Development Index (HDI) score.

Full-text Search

At the bottom of the filter panel is a free-text search box that allows keyword searches to be conducted across titles, abstracts, and/or authors. Boolean operators such as AND, OR, and NOT can be used to combine keywords.

At least one of the three search categories (title, abstract, or author) must be selected for the search to run; the default option is to search across titles and abstracts. The counter updates to show how many of the filtered records contain the search term against the total number of records in the database that contain the search term.

For example, Figure 7 shows that out of 4,597 records in the database that use either *agriculture* or *food security* in their titles or abstracts, 1,778 are based in Asia.

The screenshot displays the filter panel of the Climate and Health Map interface. It is divided into three main sections: Study location, Author affiliation, and Full-text search.

Study location

Location grouped by Group (Lancet 2026)

90 / 2,449 SIDS	1,778 / 22,202 Asia	299 / 7,786 Africa	266 / 10,221 Europe	104 / 4,377 Latin America	52 / 2,609 Oceania	246 / 12,991 Northern America
--------------------	------------------------	-----------------------	------------------------	------------------------------	-----------------------	----------------------------------

Author affiliation

Affiliation grouped by Group (Lancet 2026)

14 / 791 SIDS	854 / 18,078 Asia	102 / 4,565 Africa	270 / 13,824 Europe	24 / 2,766 Latin America	60 / 3,673 Oceania	233 / 15,570 Northern America
------------------	----------------------	-----------------------	------------------------	-----------------------------	-----------------------	----------------------------------

Full-text search

1,778 / 4,597

agriculture OR food security

Figure 7: Full-text search for either agriculture or food security across titles and abstracts of records filtered for Asia

Panel 2: Scatterplot

The scatterplot plots the filtered records in a 2-dimensional representation of the topic space (Fig. 8). Records with similar content are positioned close to each other using dimensionality reduction. Keywords are displayed directly on the map, allowing users to identify thematic clusters at a glance. In addition, as every dot in the scatterplot represents one record, dense clusters indicate high research volume while sparse areas may represent evidence gaps.

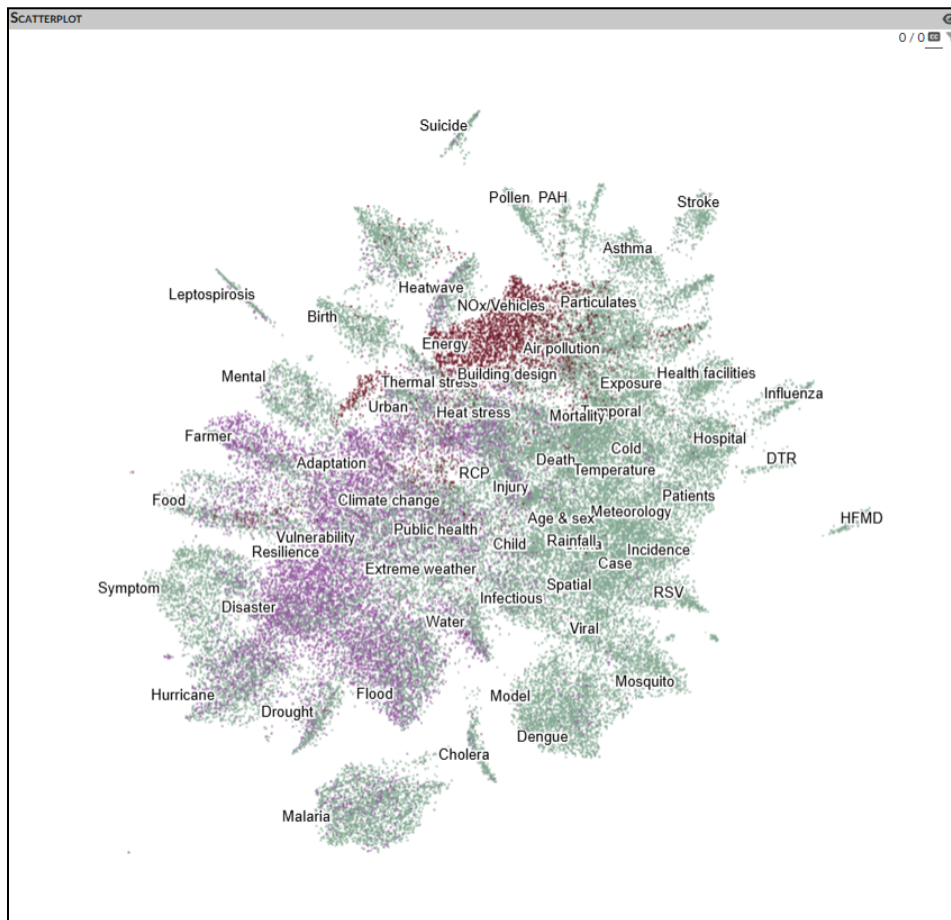


Figure 8: Scatterplot showing all records, colour-coded by category

The keywords can be hidden using the cc caption on the panel's header. To interact with the scatterplot, either click on a single point to select one record, or hold the Shift key and lasso-select a cluster of records. The counter at the top will update to show how many records in the cluster match the filter(s) against the total number of records in the cluster. The results panel will also update to list all the matched records in the selected cluster. Toggling off the filter using the  icon will mean that records are no longer restricted to only the selected cluster.

As an example, Figure 9 shows that out of 9,853 records in the selected cluster, 61 focus on disaster risk reduction in Asia.

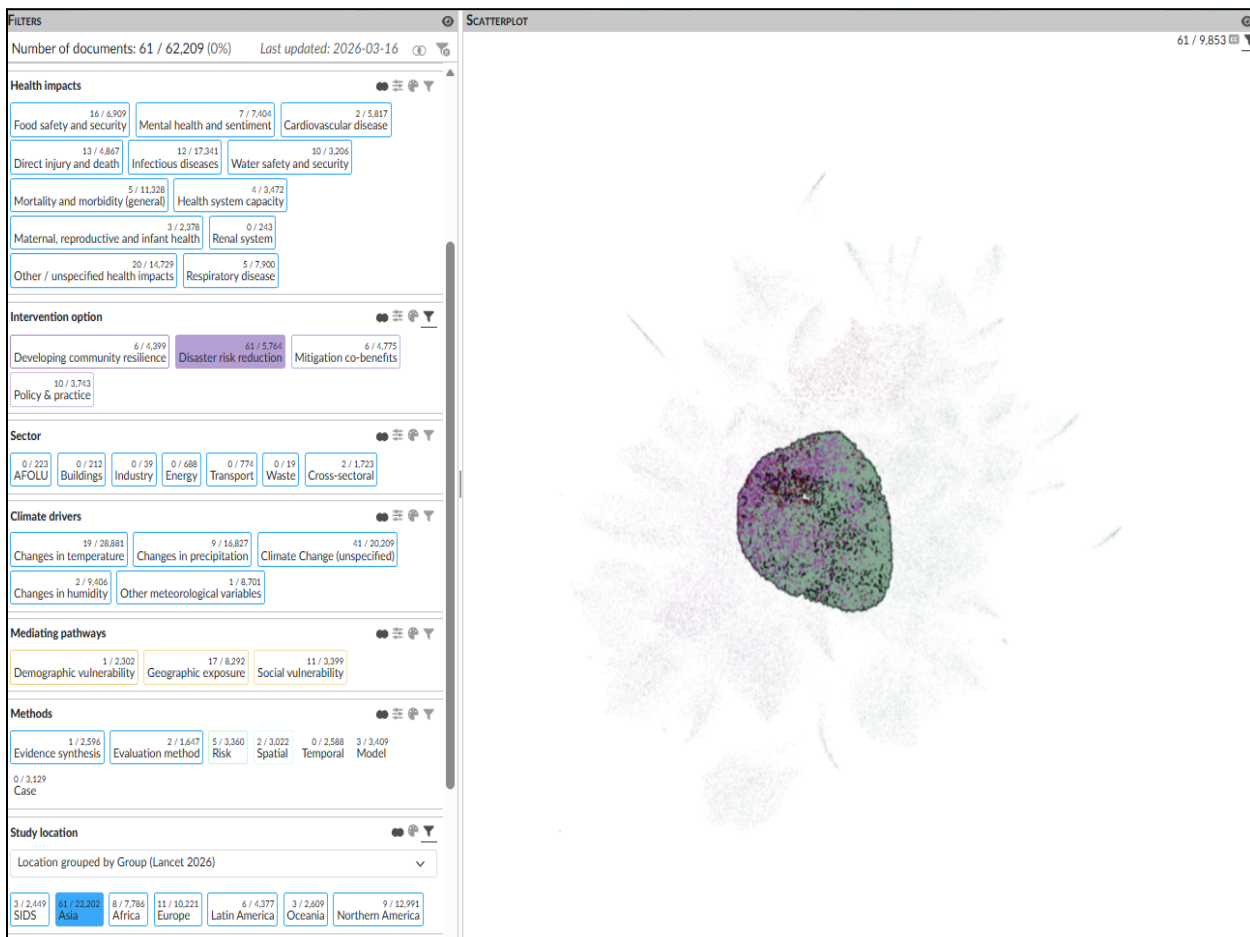


Figure 9: Scatterplot showing records of disaster risk reduction in Asia in a specific cluster

Panel 3: Geographic Map

The geographic map displays research that matches the filters on a geographic map. To interact with the map, first select a particular country so that it is outlined in green (only one country can be selected at a time), then lasso-select places while holding the Shift key. For example, Figure 10 shows that the selected cluster of Indian cities contains 62 adaptation studies.

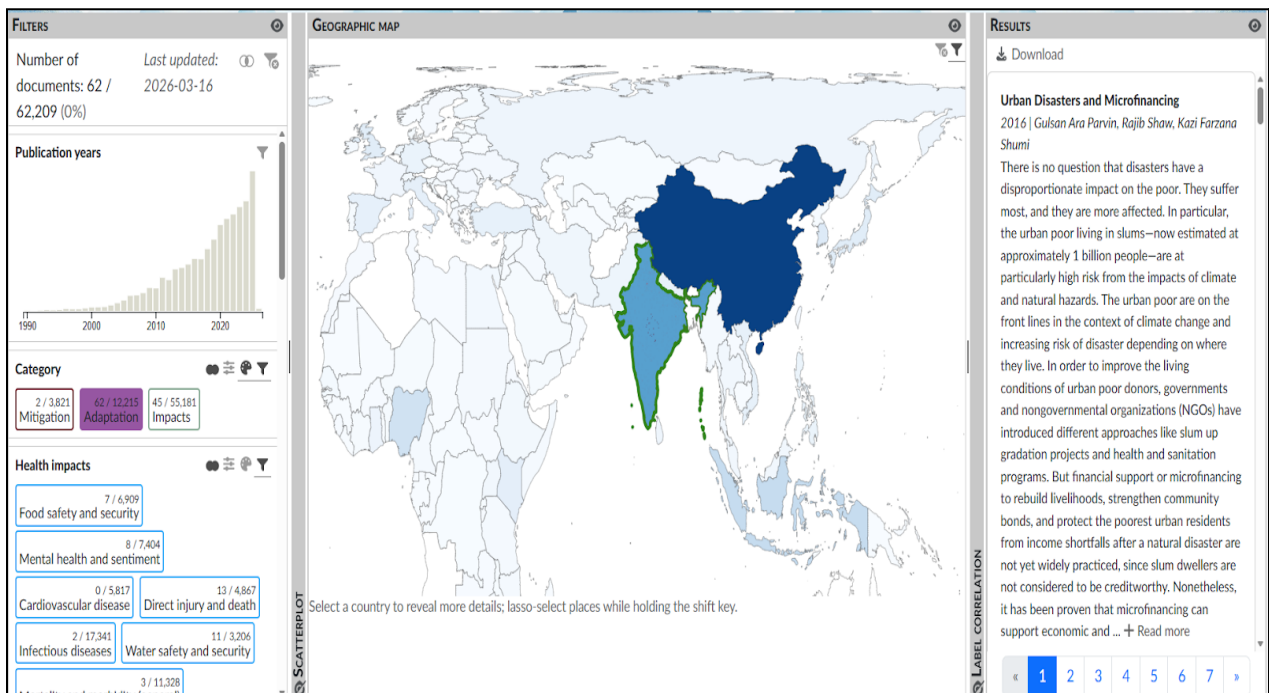


Figure 10: Research on adaptation in selected Indian cities

Panel 4: Label Correlation

The Label Correlation panel displays the distribution of research at the intersection of different sets of filters (Fig. 11). Each cell contains the number of records which have high topic scores for the selected row (vertical axis) and column (horizontal axis) topics. Clicking on any of the cells narrows the selection to records which address the combination of row and column topics. Cell colours can range from light yellow to dark green, with darker colours representing higher record counts.

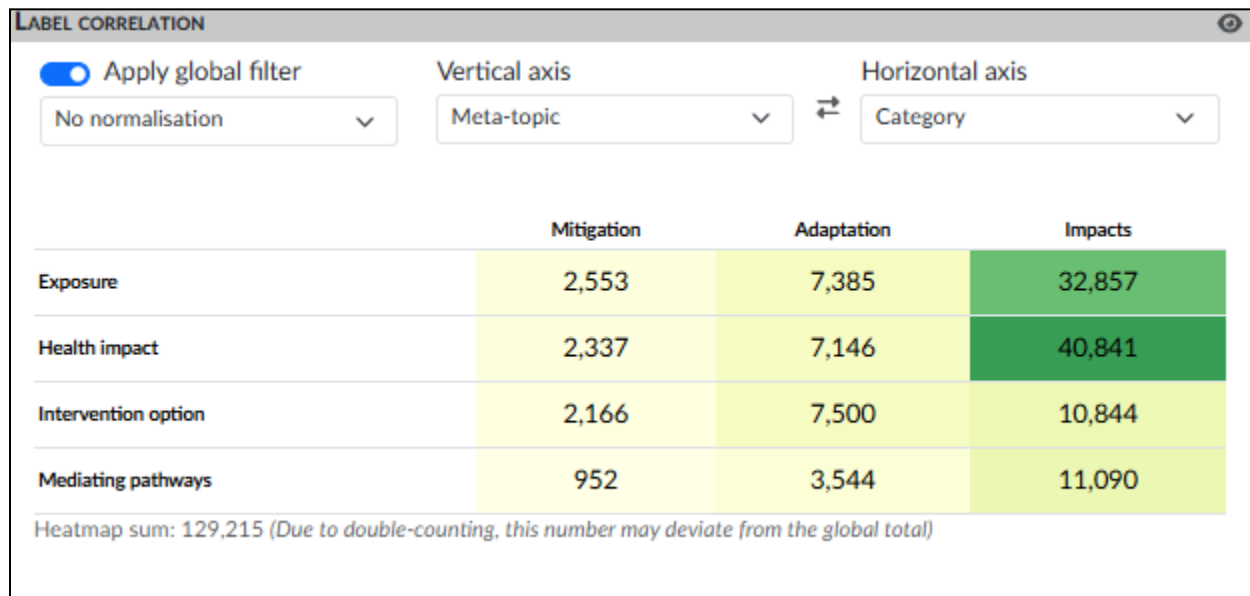


Figure 11: Heatmap with meta-topic (row) vs. category (column)

Other options include:

- Using the **normalisation dropdown** to obtain percentage values, along with absolute counts
- Applying the **global filter** to only reflect currently filtered records, as opposed to full database counts
- Using the **switching arrows** to switch the row and column topics

Panel 5: Results

The results panel shows individual records matching the current filters (Fig. 12). The following information is shown in each record:

- Publication information: title, year, author(s), abstract
- DOI and OpenAlex links
- Scores on classification labels (use the + button to expand additional labels)
- Report error: Flags a miscategorised record to the data team for review
- Download: Downloads the currently filtered dataset (click “selected”) or the full unfiltered dataset (click “all”).

RESULTS

Download all selected

Asesmen kerentanan dan kapasitas desa berbasis masyarakat dalam pengurangan risiko bencana di kawasan rawan bencana gunung merapi Kabupaten Magelang tahun 2011
 2011 | Mudmainah Vitasari
 Tujuan penelitian ini adalah : (1) Mengetahui kerentanan Kawasan Rawan Bencana Gunung Merapi di Kabupaten Magelang tahun 2011, (2) Mengidentifikasi prioritas kerentanan Kawasan Rawan Bencana Gunung Merapi di Kabupaten Magelang tahun 2011, (3) Mengetahui kapasitas Kawasan Rawan Bencana Gunung Merapi di Kabupaten Magelang tahun 2011, (4) Mengidentifikasi tindakan/aksi pengurangan risiko bencana yang akan dilakukan masyarakat Kawasan Rawan Bencana Gunung Merapi di Kabupaten Magelang tahun 2011, (5) Mengetahui prioritas tindakan/aksi pengurangan risiko bencana yang akan dilakukan masyarakat Kawasan Rawan Bencana Gunung Merapi di Kabupaten Magelang tahun 2011. Sesuai dengan tujuan penelitian, maka penelitian ini menggunakan metode penelitian deskriptif dan historis dengan pendekatan VCA (Vulnerability and Capacity Assessment). Teknik sampling yang digunakan adalah Purposive Sampling. Purposive Sampling digunakan untuk memilih sampel desa untuk masing-masing Kawasan Rawan Bencana (KRB) dan m... + Read more

OpenAlex
 Climate sensitivity (0.76) Eastern Mediterranean (3) Climate Change (unspecified) (0.76) North America (2) High (28) Disaster (0.68) Europe & Central Asia (3) Very High (3) Middle East, North Africa, Afghanistan & Pakistan (3) Americas (2) Relevant (major category) (0.71) Middle East (3) Southern Asia (2) Asia (30) Vulnerability (0.68) Developed Countries (3) South Asia (2) Lower middle income (2) Asia and developing Pacific (27) Latin America and Caribbean (2) Upper middle income (28) Europe (3) High income (3) Europe (3) South-East Asia and Pacific (25) Not relevant impacts (1) IDN (2) SDS (2) Changes in precipitation (0.6) Europe (3) Adaptation (0.58) Asia (30) Middle East (3) Medium (2) Impacts (0.74) Europe (3) Western Pacific (25) East Asia & Pacific (25) South-East Asia (2) BRD (28) Latin America and Caribbean (2) Latin America & Caribbean (2) + Report error

A 10-year time-series analysis of respiratory and cardiovascular morbidity in Nicosia, Cyprus: the effect of short-term changes in air pollution and dust storms
 2008 | Nicos Middleton, Panayiotis K. Yiallouris, Savvas Kleanthous, Ourania Kolokotroni, Joel Schwartz, Douglas W. Dockery, Philip Demokritou, Petros Koutrakis
 To date, a substantial body of research has shown adverse health effects of short-term changes in levels of air pollution. Such associations have not been investigated in smaller size cities in the Eastern Mediterranean. A particular feature in the region is dust blown from the Sahara a few times a year resulting in extreme PM10 concentrations. It is not entirely clear whether such natural phenomena pose the same risks. The effect of changes in daily levels of particulate matter (PM10) and ozone (O3) on hospitalization for all, cardiovascular and respiratory causes in the two hospitals in Nicosia during 1 January 1995 and 30 December 2004 was investigated using generalized additive Poisson models after controlling for long- and short-term patterns as well as for the effect of weather. Meteorological records were reviewed to identify dust-storm days and analyses were repeated to quantify their effect on cardio-respiratory morbidity. For every 10 microg/m3 increase in daily average PM10 co... + Read more

DOI OpenAlex
 Developed Countries (8) North America (5) Relevant impacts (1) Europe & Central Asia (3) Heatwaves (0.56) Very High (3) Relevant (major category) (0.77) Asia (3) Asia (3) Very High (8) Temporal (0.62) Europe & Central Asia (3) North America (5) Ozone (0.6) Air pollution and allergens (0.99) Developed Countries (3) Northern America (5) Americas (5) Europe (3) High income (8) High income (3) Respiratory disease (1) Europe (3) Europe (3) Dust storm (0.76) Europe (3) Mortality and morbidity (general) (1) Cardiovascular disease (1) Other meteorological variables (1) Asia (3) Extreme event attribution (1) North America (5) Impacts (0.76) Hospital (0.65) Asia (3) Research Article (0.98) + Report error

Meteorologically Driven Simulations of Dengue Epidemics in San Juan, PR
 2015 | Cory W. Morin, Andrew J. Monaghan, Mary H. Hayden, Roberto Barrera, Kacey C. Ernst
 Meteorological factors influence dengue disease ecology by modulating vector-mosquito population dynamics, host

« 1 2 3 4 5 6 7 8 »

Figure 12: Results panel showing example records

Additional Elements

Table 2: Additional elements of the Literature Hub—Climate and Health Map

Element	Description
Info	Switches the default Explorer tab to project background information.
Home	Returns to the Literature Hub homepage listing all projects.
About	Provides information about the development of the Literature Hub (including citation information).
License/Privacy	Shows the data licensing and privacy policy of the Literature Hub.

Worked Example

“I want to find recent studies on the effects of increased heat exposure on the health of pregnant women in low- and middle-income countries.”

Step 1: Open the Climate and Health Map at [Literature Hub](#).

Step 2: In the **category** group, select **impacts**.

Step 3: In the **health impacts** group, select **maternal, reproductive and infant health**.

Step 4: Under **climate drivers**, select **changes in temperature**.

Step 5: Go to the dropdown under **study location** and select **location grouped by income group (World Bank 2026)**.

Step 6: Now, select **upper middle income**, **lower middle income**, and **low income** under **study location**.

Step 7: Since we are only interested in recent studies, drag across the **publication years** chart to select **2016–2025**.

Step 8: Use the **full-text search** box and type **pregnan*** to capture pregnant, pregnancy, and pregnancies across titles and abstracts.

Step 9: Click **download** and **selected** to export the filtered results.

Possible additional steps:

- Use the **heatmap** to explore **how research on reproductive health impacts is distributed across different income groups of countries**.
- **Browse the scatterplot** by drawing a selection box (press Shift and drag) around dense clusters and inspect the results.
- Use the **geographic map** to further **narrow down the study location**.
- **Raise the minimum label score** to retain only high-confidence classifications.
- **Add additional keywords** using Boolean operators to refine the search further.
- If the record count is very low, consider **increasing the range of publication years**.

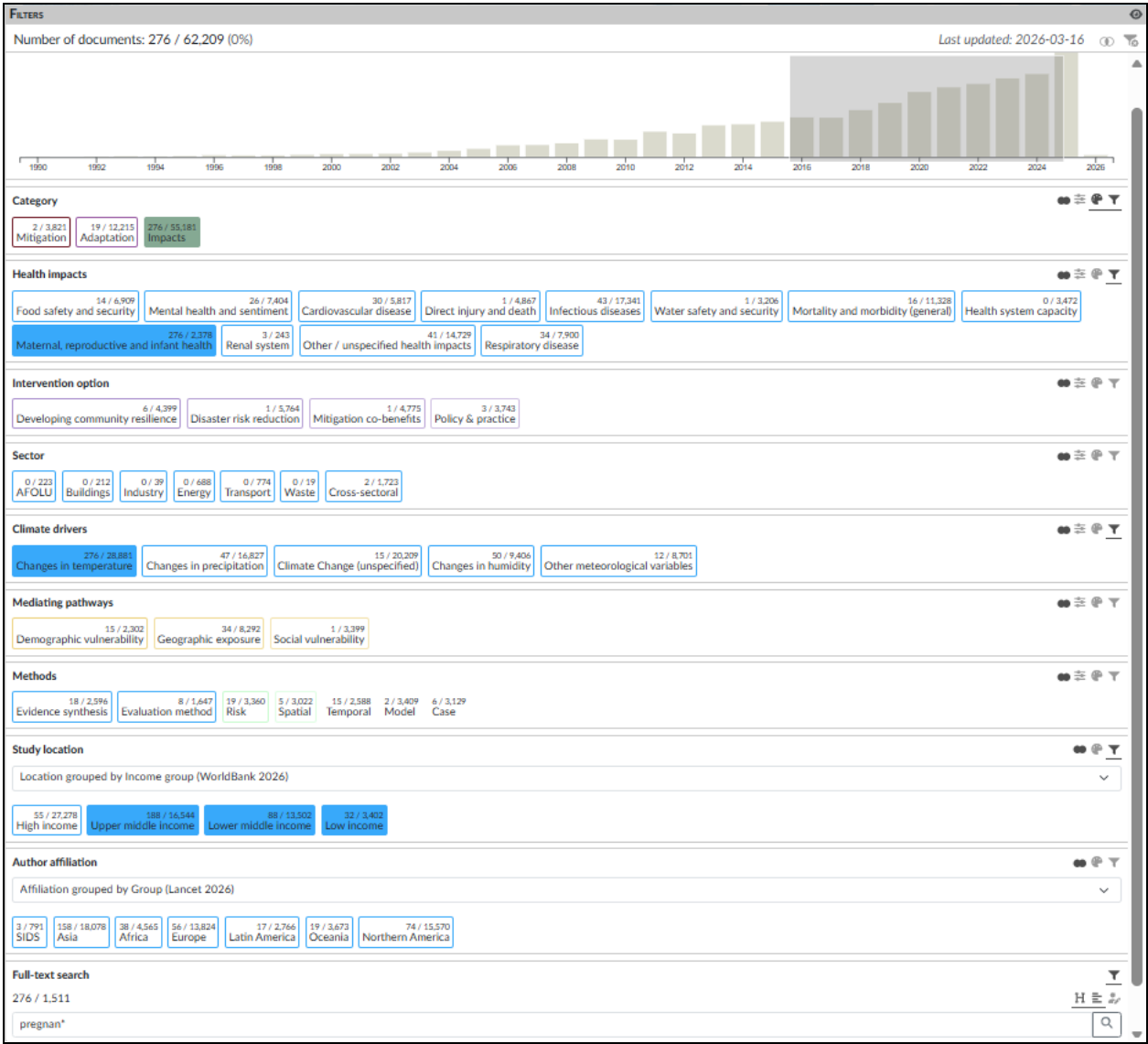


Fig. 13: Filters used in the worked example