Supplementary Materials

Topic modelling exposes disciplinary divergence in research on the nexus between human mobility and the environment

This Supplementary Online Material contains the following sections:

A. Literature review

Table S1. Further extraction criteria used to assess the scope of articles and their relevance to this literature review

Scope	Exclusion criteria	Inclusion criteria	Justification
Historical accounts	Articles on historical accounts of human mobility and the environment or climate change, often thousands of years ago	Articles on recent case studies, or using time series data, but not older than 50 years, and articles that compare contemporary mobility to mobility in the past	Not the scope of this study
Non-natural environment	Articles in which the terms 'environment' and 'climate' were used in irrelevant contexts (e.g. build environment, social environment, financial environment, work climate, political climate)	Articles on natural environmental issues such as degradation or pollution, disasters or hazards, extreme weather events and climate change or variability	Not the scope of this study
Non-human	Mobility of non-humans (e.g. animals, sediments, chemicals)	Humans actively moving	Not the scope of this study
Pastoralism	Articles on pastoralism when they dealt purely with livestock mobility and pastoralists' mobility patterns.	Articles on pastoralism when they dealt with changes in mobility patterns due to climate change or environmental issues	Movements were deemed related to cultural practices rather than climate change or environmental issues.
Evacuation routes	Articles on the calculation of best transportation routes in the case of evacuations	Articles on evacuation decisions by people, derived from observed data or surveys	No humans involved but simulations of hypothetical settings, mostly for traffic planning in large cities
Firm relocations	Articles on the relocation of industries and firms to avoid environmental taxes or pollution regulation.	Articles on labour mobility where people move for employment with a reference to climate change or environmental issues	No evidence of humans (labourers) also moving with the industries
Perceptions	Articles on climate change or environmental perceptions of migrants in their new locations	Articles on perceptions driving environmental or climate change mobility	No evidence that migrants have moved because of climate change or environmental issues, nor that migrants affect the environment

Scope	Exclusion criteria	Inclusion criteria	Justification
Displacement	Articles on displacement due to general development but not related to environmental issues	Articles on displacement due to environmental shocks resulting from projects such as flooding due to dams	Displacement occurred mainly because of development and not environmental issues or climate change
Changes in agricultural land use	Articles on environmental degradation where people move agricultural production over a short distance (e.g. moving cattle to a different pasture or moving crops to a different field)	Articles on environmental degradation where people move agricultural production and also themselves, their household and communities, or abandon agriculture	No changes in human mobility or place of residence
Education	Articles on the education of environmental or climate change induced migrants	Articles on the impact of education on environmental or climate change mobility or capacity building to cope with such mobility	Not on the actual migration

Because we only searched for terms in the Scopus database and in abstracts and keywords, we undertook a cross reference check to minimise omission of relevant literature. To do so we checked the references in ten influential and highly cited publications in the field of climate change and environmental migration and disaster evacuation (Bates, 2002; Hunter, 2005; Lindell et al., 2005; McLeman and Smit, 2006; Perch-Nielson et al., 2008; Mortreux and Barnett, 2009; Black et al., 2011a&b, De Sherbinin et al., 2011; Gray and Mueller, 2012), as well as six previous literature reviews in this field (Thompson et al., 2017; Piguet et al., 2018; Borderon et al., 2019; Cattaneo et al., 2019; Stange et al., 2019; Kaczan and Orgill-Meyer, 2020) and also cross-checked with the CliMig bibliographic database (Piguet et al., 2019) which includes articles on climate change migration and which has been used in previous reviews (Piguet et al., 2018; Hoffmann et al., 2020). We found an additional 513 articles that were eligible, bringing the total number of peer-reviewed articles to 3,197. Fig S1 shows the number of articles each year with steadily increasing trend.

Fig S1. Number of articles by publication year included in an analysis environmental and climate change related mobility (n = 3,197).
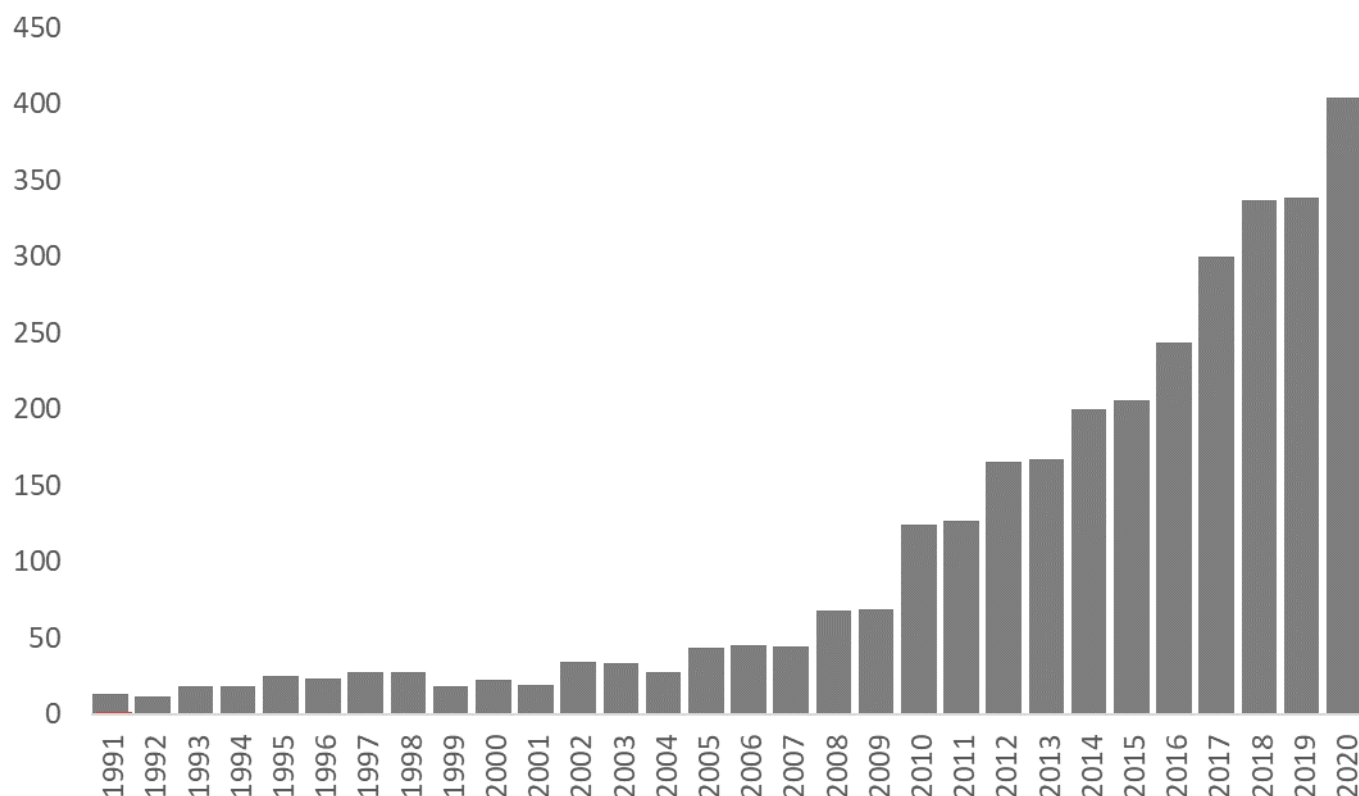
B. File processing

The full texts of the 3,197 articles were downloaded in portable document format (pdf) and converted into text (.txt) format using the open source, Java software package CERMINE (Tkaczyk, 2015). Information in the .pdf documents not related to the content and obstructing the analysis was cleaned by removing: the names, affiliations and short biographies of authors, acknowledgments and funding information. Headers and footers, bibliographies and references, footnotes, endnotes and appendices, tables, figures and their captions were also removed.

C. Text processing

All text analyses were done using R (R Core Team, 2019). Each text file, now containing only the body of the text in .txt format, was saved to subdirectories based on year of publication and read into R using the readtext package (Benoit, 2020). Corpora were constructed for texts according to year of publication using quanteda (Benoit, 2018) and cleaned as follows:

- All words were converted to lowercase

- All words were stemmed

- Punctuation, symbols, numbers, words <3 characters and standard English 'stop words' were removed

Stop words do not add much meaning to a sentence and can safely be ignored without compromising the meaning. Examples of stop words are: a, an, as, but, by, have, he, her, his, in, if, now, she, some, the, there, they, to, too, when, you (see SMART stopwordlist in Lewis et al., 2004). Cleaned texts were then tokenised and a document-feature matrix (dfm) created. A dfm is a sparse matrix where each row consists of one text item and the columns are the terms where their frequency or weighted frequency are the values. This construction and the tokenisation is a bag-of-word model where each word, or in some circumstances short phrases, are considered one unit for analysis (Grimmer and Stewart, 2013). A common dfm is the document-text matrix (dtm) where each row represents one text or document and each column a word with frequencies corresponding to each document (Salton, 1994). The created dtm can then be converted to a form for analysis using the R package topicmodels (Grün and Hornik, 2011).

D. Topic modelling

Different topics may share some words and a document can have more than one topic associated with it. A popular topic modelling approach is based on Latent Dirichlet Allocation (LDA) wherein each document is considered a mixture of topics and each word in a document is considered randomly drawn from a document's topics. Topic modelling utilises the bag-of-word method to analyse word distribution and LDA can identify themes and words within texts.

LDA is a Bayesian model where each text and word has a probability of belonging to each topic (Blei et al., 2003; Grimmer and Stewart, 2013). These probability values, gamma and beta respectively, are used to classify words and texts through selecting the highest probability value and assigning them to that. The optimal number of topics within the corpus was determined using the *ldatuning* package (Nikita, 2020). Of the four commonly used metrics (Griffiths et al., 2004; Cao et al., 2009; Arun et al., 2010; Deveaud et al.,

2014), the one developed by Deveaud et al. (2014) provided the most parsimonious set of topics (Fig S2). The Deveaud matrix value was maximised at 37 topics. While the other three metrics also showed reasonable fit, they either needed more topics to stabilise (Griffiths, Cao) or we unstable after reaching the maximum (Arun). The proportion of articles in each of the 37 topics varied from 1.1% to 4.4% (Table 1 in the manuscript).

Fig S2. Model estimations of the number of topics (between 10 and 50) within the environmental and climate migration peer-reviewed literature (N=3,197 texts)
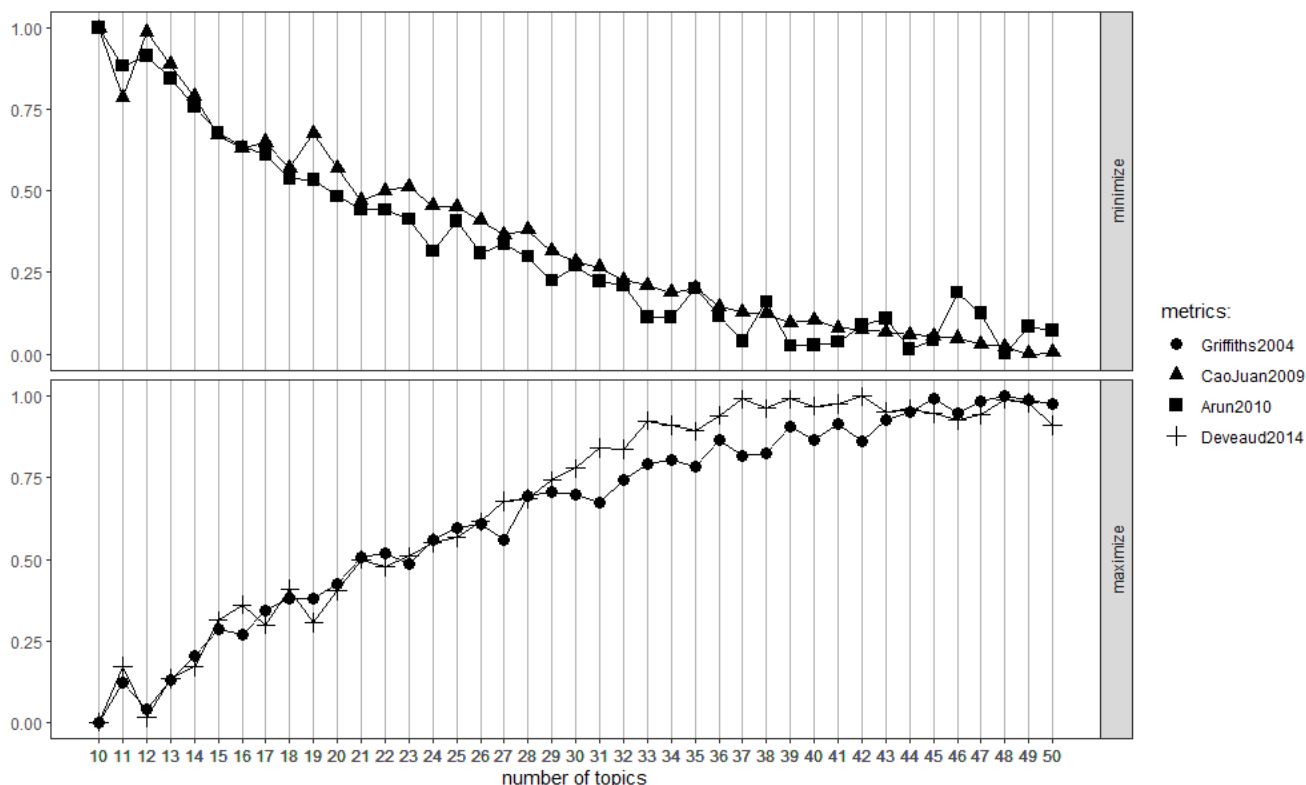

Fig S3 shows how the topic coverage has been spread over the last 30 years, in six sets, each of five years. For instance, of all articles within topic 37, none was published between 1991 and 1995, 25% were published between 1996 and 2000, 12% between 2001 and 2005, 27% between 2011 and 2015 and 20% between 2016 and 2020. Topic 9 only contains articles that were published between 2006 and 2020 (18% between 2006 and 2010 and 41% each between 2011 and 2015 and 2016 and 2020).

Fig S3. Changes in the importance of 37 topics (topic number and no. of articles brackets) within the environmental and climate migration peer-reviewed literature over the last 30 years (1991 to 2020) sorted by theme and cluster: shading intensity reflects quintile of article frequency relative to maximum in any one block of five years (palest <20% of maximum, darkest >80% of maximum)

Topic	1991-1995	1996-2000	2001-2005	2006-2010	2011-2015	2016-2020
Impact theme						
Vulnerability cluster						
Relocation of Pacific island communities (1, 3.3)						
Tsunami impact on coastal population (2, 2.5)						
Cyclone impact on coastal communities (3, 2.7)						
Environmental impact of dams (4, 2.3)						
Resource scarcity and conflict (5, 2.2)						
Land use changes (6, 2.4)						
Impacts of amenity migration (7, 2.4)						
Employment driven farm out-migration (8, 2.2)						
Environmental impacts of human mobility (9, 2.3)						
Degradation driven migration of farming households (10, 2.7)						
Wildlife human conflict (11, 3.3)						
Development induced community displacement (12, 2.8)						
Residential cluster						
Eviction of slum dwellers (13, 1.2)						
Urban green space and displacement (14, 1.1)						
Impact of pollution on location choice (15, 2.0)						
War and migration (16, 2.2)						
Climate change health impacts (17, 1.7)						
Fire evacuation (18, 2.3)						
Volcanic eruptions and displacement (19, 1.6)						
Amenity migration (20, 2.3)						
Gender (21, 2.4)						
Forest to farming conversion (22, 2.4)						
Adaptation theme						
Farming cluster						
Rural out-migration (23, 3.5)						
Models of migration as adaptation (24, 3.0)						
Drought adaptation of farmers (25, 4.4)						
Labour migration and remittances (26, 2.5)						
Disaster cluster						
Sudden onset disaster recovery (27, 2.5)						
Hurricane evacuation and warning (28, 3.9)						
Hurricane damage and relocation (29, 2.9)						
Risk behavioural models (30, 2.9)						
Spatial analysis of flood risk (31, 2.3)						
Governance cluster						
South-North migration (32, 3.1)						
Climate change refugee policy (33, 4.0)						
Concepts of environmental and climate change migration (34, 4.2)						
Post-disaster community resilience (35, 3.1)						
Global climate change discourse (36, 3.8)						
Climate change adaptation policy (37, 4.3)						

Table S2. Summary of topics (37) emerging from topic modelling of 3,197 peer-reviewed articles on environment and climate change related mobility in the last 30 years (1991 to 2020), the 50 most frequent words within topics. The mobility type is indicated in bold and the environment type underlined. The term 'climate change' is in italic and grey shaded topics deal with agriculture or farming communities.

Topic	Name	Cluster	%	50 most frequent key words
1	Relocation of Pacific island societies	V	3.3	island, *climat chang*, pacif, peopl, **reloc**, land, communiti, kiribati, <u>sea level rise</u>, cultur, tuvalu, villag, state, small, fiji, popul, govern, atol, zealand, mani, nation, futur, countri, impact, australia, place, local, live, tradit, **move**, onli, ocean, <u>water,</u> resourc, increas, <u>environment,</u> **migrat**, food, ident, import, high, coastal, indigen, reef, coral, sever, <u>eros,</u> adapt, coloni, <u>cyclon</u>
2	Tsunami impact on coastal population	V	2.5	coastal, <u>tsunami, sea level rise</u>, area, <u>storm,</u> popul, zone, <u>inund,</u> wave, impact, scenario, estim, beach, high, increas, event, protect, <u>surg,</u> futur, island, land, region, project, ocean, build, loss, citi, risk, damag, tide, rate, coastlin, chang, elev, <u>hazard</u>, ice, along, <u>eros,</u> locat, inland, shorelin , local, <u>flood</u>, earthquak, water, vulner, cost, subsid, assess, infrastruct
3	Cyclone impact on coastal communities	V	2.7	<u>flood</u>, river, <u>water</u>, peopl, bangladesh, area, <u>cyclon</u>, land, coastal, <u>eros</u>, shrimp, increase, affect, <u>salin</u>, fish, live, villag, loss, livelihood, natur, **displac**, char, delta, caus, major, high, hazard, india, dam, sever, district, embank, hous, basin, popul, poor, respond, onli, impact, local, country, season, locat, <u>disast</u>, veri, million, level, vulner, damage, aila
4	Environmental impact of dams	V	2.3	<u>water</u>, develop, polici, impact, sustain, project, manag, <u>environment</u>, system, plan, resourc, energi, servic, public, econom, govern, benefit, suppli, cost, integr, require, local, assess, provid, approach, nation, stakehold, product, sector, implement, ecosystem, process, improv, increas, scenario, demand, potenti, reduc, dam, <u>emiss</u>, region, level, infrastructur, futur, mitig, area, goal, social, institut, transport
5	Conflict over resource scarcity	V	2.2	conflict, *climat chang*, secur, <u>environment</u>, resourc, polit, increas, food, <u>water</u>, violenc, econom, region, violent, caus, countri, <u>drought</u>, scarciti, war, effect, **migrat**, impact, human, area, state, africa, link, import, popul, local, affect, lead, global, event, arm, social, insecur, civil, land, govern, mani, natur, risk, threat, <u>degrad</u>, nation, develop, sever, vulner, livelihood, forc
6	Land use changes	V	2.4	land, area, china, popul, urban, chang, develop, region, increas, rural, provinc, econom, agricultur, growth, polici, counti, cover, citi, industri, <u>environment</u>, ecolog, <u>water</u>, natur, govern, mountain, period, <u>river, forest</u>, decreas, resource, rate, farmland, million, plan, level, spatial, soil, settlement, indic, signific, construct, product, cropland, process, improv, **abandon**, rapid, <u>degrad</u>, caus, expans
7	Impacts of amenity migration	V	2.4	**migrat**, popul, area, counti, **move**, region, rural, migrant, age, amen, peopl, hous, locat, resid, growth, live, chang, place, import, variabl, income, urban, employ, econom, high, prefer, rate, level, residenti, **in-migr**, reason, state, attract, increase, signific, elder, municip, analysi, job, retir, net, distanc, pattern, indic, census, motiv, characterist, educ, citi, servic
8	Employment driven farm out-migration	V	2.2	rural, urban, worker, work, labour, agricultur, develop, migrant, villag, area, local, sector, product, econom, employ, farm, social, market, citi, job, govern, servic, industri, farmer, educ, system, income, land, polici, peopl, increas, live, activ, livelihood, capit, town, economi, busi, region, wage, mani, skill, process, opportun, level, provid, poor, small, school, peri-urban

Topic	Name	Cluster	%	50 most frequent key words
9	Environmental impacts of human mobility	V	2.3	forest, chang, soil, system, increase, land, area, tree, speci, agriculture, product, ecosystem, manag, crop, plant, veget, local, water, farmer, resource, region, ecology, practice, human, cover, impact, season, degrad, conserve, landscap, reduc, natur, high, knowledge, biodiverse, loss, import, declin, farm, eros, condit, cultiv, rainfall, field, yield, dri, service, drought, irrig, **abandon**
10	Degradation driven migration of farming households	V	2.7	land, farm, farmer, food, agricultur, area, product, crop, region, cultiv, increas, ghana, popul, soil, season, local, market, **migrat**, fertil, rural, livestock, degrad, onli, import, system, africa, northern, price, resourc, communiti, period, major, household, famili, activ, mani, produc, avail, irrig, secur, west, tradit, high, ethiopia, cattl, villag, access, rainfal, yield, drought, labour, dri
11	Wildlife human conflict	V	3.3	forest, fish, local, resourc, communiti, land, villag, area, conserv, manag, fisher, govern, fisheri, develop, mine, protect, peopl, activ, project, nation, livelihood, compani, reserv, natur, plantat, park, environment, access, mani, state, increas, oil, wildlif, industri, product, extract, inform, institut, social, popul, econom, impact, conflict, speci, sustain, establish, district, support, benefit, polit
12	Development induced community displacement	V	2.8	**resettle**, land, **reloc, displac**, project, peopl, govern, communiti, compens, develop, villag, social, plan, livelihood, dam, process, state, affect, site, area, live, hous, construct, polici, provid, properti, move, risk, resource, local, loss, impact, mani, implement, access, indigen, econom, onli, program, polit, environment, resid, bank, famili, locat, popul, involve, cost, poverti, offici
13	Eviction of slum dwellers	R	1.2	urban, citi, settlement, govern, develop, inform, area, slum, popul, resid, environment, hous, water, polit, state, local, infrastructur, plan, live, servic, poor, social, growth, system, sustain, mani, municip, space, problem, public, onli, dweller, access, formal, materi, lack, work, provid, econom, dhaka, challeng, improv, central, network, process, organ, **evict,** project, wast, squatter
14	Urban green space and displacement	R	1.1	space, green, urban, area, neighbourhood, park, land, develop, citi, hous, resid, natur, landscap social, environment, increas, open, public, local, resident, live, recreat, access, provid, amen, peopl, visitor, effect, protect, sustain, qualiti, activ, plan, nation, level, place, servic, spatial, densiti, pattern, high, popul, import, associ, properti, design, **displac**, ecology, village, econom, prefer
15	Impact of pollution on location choice	R	2.0	environment, pollut, **mobil**, air, level, effect, wast, human, site, qualiti, impact, citi, variabl, popul, exposur, estim, industri, indic, emiss, area, signific, concentr, control, increas, relationship, activ, pattern, social, resourc, health, analysi, cooper, locat, spatial, day, high, distribut, measur, individu, hazard, correl, **movemen**t, caus, observ, natur, associ, network, statist, examin, urban
16	War and migration	R	2.2	world, popul, million, region, mani, war, peopl, centuri, human, increas, global, drought, state, sever, onli, border, larg, major, caus, syria, citi, great, nation, period, death, famin, countri, north, industri, forc, continu, polit, **movement**, declin, problem, recent, japan, earli, rate, russia, crisi, arctic, asia, system, econom, south, billion, intern, western, power
17	Climate change health impacts	R	1.7	health, *climat chang*, increas, diseas, impact, food, popul, risk, water, peopl, heat, vulner, communiti, human, children, associ, mortal, affect, mental, condit, social, poor, servic, exposur, temperatur, public, extrem, global, access, flood, reduc, nation, caus, effect, mani, high, level, care, physic, malaria, **displac**, stress, outcom, death, region, rate, event, weather, environment, infecti

Topic	Name	Cluster	%	50 most frequent key words
18	Fire evacuation	R	2.3	fire, wildfir, bushfir, **evacu**, resid, properti, plan, protect, communiti, action, **stay**, peopl, home, risk, **leav**, household, defend, respons, shelter, prepar, area, threat, hous, australia, emerg, manag, warn, decis, safeti, inform, mani, activ, event, mitig, particip, intend,, option, danger, state, import, behaviour, earli, polici, tornado, servic, prepared, befor, high, agenc, wait
19	Volcanic eruptions	R	1.6	resid, communiti, erupt, garden, hous, gentrifi, citi, food, environment, local, urban, volcan, neighbourhood, peopl, social, space, green, develop, live, public, **displac**, process, activ, mani, place, plan, work, area, state, project, build, organ, justic, redevelop, white, creat, increase, home, park, support, neighbourhood, econom, properti, cultur, activist, within, district, market, polit, **move**
20	Amenity migration	R	2.3	rural, tourism, local, communiti, develop, resid, landscap, area, town, tourist, home, cultur, natur, econom, region, land, place, hous, mani, lifestyl, social, amen, chang, busi, mountain, increas, peopl, activ, environment, australia, live, work, industri, plan, process, state, attract, properti, polit, locat, south, migrant, recent, impact, newcom, tradit, mine, settlement, market, hotel
21	Gender	R	2.4	women, gender, livestock, men, herder, villag, pastor, anim, pastur, area, graze, local, resourc, manag, tradit, camp, famili, nomad, peopl, collect, social, **mobil**, male, rangeland, activ, access, cultur, region, increas, household, communiti, cattl, mani, femal, import, work, mountain, chang, natur, product, role, water, fodder, goat, live, livelihood, move, knowledg, season
22	Forest to farming conversion	R	2.4	land, forest, deforest, agricultur, area, product, region, chang, amazon, state, increase, cattl, coffe, frontier, rural, popul, environment, crop, mexico, process, market, import, econom, produc, brazil, municip, clear, ranch, expans, local, farmer, develop, pastur, price, cover, latin america, social, polici, resourc, smallhold, cultiv, rate, period , system, small, govern, settlement, capit, export, palm oil
23	Rural out-migration	F	3.5	**migrat**, variabl, effect, migrant, intern, *climat chang*, rainfal, measur, shock, household, signific, increas, rural, destin, environment, individu, estim, level, countri, origin, agricultur, area, period, condit, **out-migr**, associ, sampl, drought, urban, **move**, control, posit, precipit, analysi, survey, natur, specif, negat, weather, district, relationship, flow, indic, across, observ, onli, temperatur, statist, popul, network
24	Models of migration as adaptation	F	3.0	*climat chang*, effect, temperatur, estim, increas, impact, cost, variabl, averag, weather, affect, agricultur, incom, product, countrI, rate, region, scenario, precipit, price, extrem, expect, period, level, econom, futur, signific, onli, measur, project, across, warm, decreas, locat, condit, observ, reduc, loss, negat, assum, shock, sector, equat, panel, state, term, event, damage, **migrat**, adapt
25	Drought adaptation of farmers	F	4.4	*climat chang*, adapt, farmer, livelihood, household, strategi, crop, agricultur, drought, vulner, farm, increas, product, water, rainfal, food, impact, season, variabl, access, livestock, area, cope, respond, communiti, risk, inform, villag, incom, local, capac, district, irrig, adopt, practice, activ, indic, diversif, respons, reduc, land, system, level, region, develop, temperatur. rural, resourc, social, smallholder
26	Labour migration and remittances	F	2.5	household, incom, land, labor, villag, **migrat**, remitt, rural, agricultur, migrant, survey, livelihood, effect, product, capit, member, signific, area, increas, employ, farm, asset, famili, variabl, resourc, activ, work, access, level, sampl, off-farm, local, import, invest, collect, decis, head, depend, market, educ, impact, particip, posi, sourc, indic, strategi, consumpt, individu, poverti, receiv

Topic	Name	Cluster	%	50 most frequent key words
27	Sudden onset disaster recovery	D	2.5	disast, hazard, earthquak, govern, event, natur, emerg, risk, communiti, inform, respons, local, vulner, manag, recoveri, warn, peopl, plan, hous, damag, build, system, shelter, affect, provid, **evacu**, area, follow, develop, landslid, cyclon, process, knowledg, mitig, access, prepared, resili, effect, activ, flood, communic, social, relief, typhoon, assist, agenc, state, public, resid, capac
28	Hurricane evacuation and warning	D	3.9	**evacu**, hurricane, storm, decis, evacuee, inform, behaviour, order, area, risk, warn, household, resid, variabl, home, forecast, individu, effect, signific, locat, survey, peopl, landfal, counti, shelter, state, wind, experi, social, estim, rate, respons, categori, emerg, office, indic, florida, media, public, impact, influenc, import, probabl, popul, previous, rout, surg, zone, predict, travel
29	Hurricane damage and relocation	D	2.9	resid, disast, damage, household, **reloc**, neighbourhood, hurrican, **return**, hous, place, area, recoveri, home, communiti, katrina, social, **displac**, orlean, attach, effect, popul, live, individu, signific, incom, level, **move**, famili, counti, sampl, properti, variabl, natur, flood, indi, associ, impact, affect, measur, buyout, respond, estim, locat, resourc, risk, black, chang, hazard, decis, survey
30	Risk behavioural models	D	2.9	respond, risk, percept, signific, respons, variabl, peopl, inform, survey, perceive, experi, behaviour, particip, measur, level, educ, prepared, effect, hazard, indic, sampl, individu, correl, intent, question, person, expect, influenc, action, posit, resid, household, protect, affect, ask, onli, import, questionnaire, live, item, age, knowledg, flood, negat, attitud, earthquak, relationship, awar, **evacu,** warn
31	Spatial analysis of flood risk	D	2.3	popul, flood, area, risk, spatial, scenario, vulner, hazard, indic, variabl, analysi, simul, level, map, locat, estim, assess, social, high, event, inform, distribut, approach, individu, agent, measur, zone, impact, within, identifi, potenti, observ, index, avail, dynam, scale, consid, set, pattern, system, decis, develop, predict, calcul, provid, process, present, flow, exposur, network, statist
32	South-North migration	G	3.1	countri, popul, **migrat,** develop, growth, econom, increas, **immigr**, region, world, global, rate, africa, intern, level, polici, peopl, nation, migrant, **emigr**, high, poverti, million, effect, urban, incom, demograph, import, europ, fertil, natur, chang, south, labour, educ, rural, trade, poor, asia, declin, product, project, estim, capit, flow, gdp, resourc, market, future, invest
33	Climate change refugee policy	G	4.0	refuge, **displac**, intern, state, protect, countri, human, environment, law, nation, peopl, legal, develop, *climat chang*, person, polici, assist, govern, respons, convent, humanitarian, host, forc, provid, principl, migrant, unhcr, camp, polit, border, address, exist, issu, unit, region, articl, oblig, situate, popul, disast, communiti, agreement, asylum, status, natur, idp, effect, organ, fund, treati
34	Concepts of environmental and climate change migration	G	4.2	**migrat**, environment, *climat chang*, migrant, peopl, **mobil, move**, popul, social, econom, decis, impact, **movement**, driver, intern, area, livelihood, destin, affect, adapt, event, place, **displac**, increas, vulner, influenc, human, condit, import, process, natur, forc, polici, within, pattern, potenti, origin, region, reason, mani, respons, link, develop, understand, literatur, term, futur, complex, strategi, perman
35	Post-disaster community resilience	G	3.1	social, communiti, famili, peopl, particip, place, live, home, work, cultur, experi, member, life, network, individu, migrant, children, process, villag, inform, mani, **mobil**, support, **move**, local, import, within, resid, practice, understand, help, respond, interviewe, connect, know, activ, describe, sens, women, feel, role, person, relationship, only, environment, provid, school, ident, **return**, knowledg

Topic	Name	Cluster	%	50 most frequent key words
36	Global climate change discourse	G	3.8	*climat chang*, polit, global, human, discours, develop, social, polici, <u>environment</u>, power, issu, state, secur, understand, peopl, argu, world, respons, frame, approach, concern, form, justic, intern, narrat, question, debat, natur, within, practic, concept, govern, futur, term, knowledg, scienc, emerg, nation, societi, process, action, cultur, work, actor, adapt, vulner, idea, perspect, **mobil**, interest
37	Climate change adaptation policy	G	4.3	adapt, *climat chang*, communiti, risk, <u>flood</u>, plan, vulner, develop, manag, strategi, govern, resili, polici, local, impact, **reloc**, capac, respons, level, social, action, increas, process, institut, system, measur, reduc, support, protect, implement, approach, framework, nation, resourc, address, event, effect, limit, provid, build, project, identifi, infrastructure, natur, futur, challeng, effort, <u>hazard</u>, coastal, **retreat**

Clusters: V = Vulnerability, R = residential, G = Governance, D = Disaster, F = Farming

E.   References

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