

WHAT DIFFERENCE DOES LANGUAGE MAKE?

Comparative insights from systematic reviews of the Vietnamese and English language literatures on climate change and health of outdoor workers

Anh Ngoc Vu and Jonathan Rigg

The English language as a mirror for them all?

250 systematic reviews on PubMed

- 34% explicitly excluded non-English articles
- 32% did not mention language exclusion but did not include any non-English language studies
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Jackson and Kuriyama (2019)

Our guiding question...

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The project as a whole addresses:


- SDG Goal 3 (good health and well-being)
- SDG Goal 5 (gender equality)
- SDG Goal 8 (decent work and economic growth)
- SDG Goal 17 (partnership for the Goals)

Methodology – Overview of the Five Stages (1/3)


Develop search strings related to climate change and public health outcomes



Develop inclusion and exclusion criteria to determine which literature would be assessed



Pilot search strings on four databases to refine the relevance of our strings and inclusion criteria



Conduct search on Scopus, Web of Science and PubMed (for English language literature)



Screening for duplicates and their title, abstract, and full text

Methodology – Search Strings & Inclusion / Exclusion Criteria (2/3)

Component	Search strings
Climate	Climat* OR weather OR flood* OR drought OR heatwave OR heat OR cold OR global warming OR hurricane OR typhoon OR monsoon OR rainfall OR adaptation OR mitigation OR greenhouse gas OR storm OR cyclone OR coastal erosion OR risk OR natural disaster OR wildfire
Health	Health OR disease OR infectious OR morbidity OR wellbeing OR quality of life OR mortality OR death OR accident OR well-being OR injur* OR hospital* OR mental OR medical* OR emergency OR stroke OR maternal OR exhaustion OR cramp OR pregnan* OR fever* OR fatigue OR burn OR stress OR skin
Work	Outdoor work* OR porter OR construction OR vendor OR street vendor OR rider OR outdoor occupation
Social	Gender OR age OR generation OR old OR young OR elderly OR poverty OR exclusion OR precari* OR migrant OR minority OR vulnerabl* OR informal* OR casual* OR contract* agreement
Urban	City OR cities OR town OR urban OR metropolitan
Asia	Asia OR Vietnam OR China OR Timor Leste OR East Timor OR Indonesia OR Philippines OR Cambodia OR Thailand OR Laos OR Lao PDR OR Myanmar OR Burma OR Malaysia OR Brunei OR Brunei Darussalam OR Mongolia OR India OR Sri Lanka OR Nepal OR Pakistan OR Bangladesh OR Bhutan OR Afghanistan OR North Korea OR Democratic People's Republic of Korea

Criterion	Inclusion	Exclusion
Content	Research how climate change & extreme weather events impact health Research on climate change adaptation and mitigation Outdoor workers	Research on how climate – rather than climate change – impacts health and wellbeing (e.g. dry/cold//humid climates) Indoor workers
Types of literature	Academic papers Grey literature	Opinion pieces Popular media (e.g. blogs, social media posts, and newspaper articles)
Date of publication	January 2000 – April 2024	Before January 2000
Geography	Urban Asia	Not urban Asia

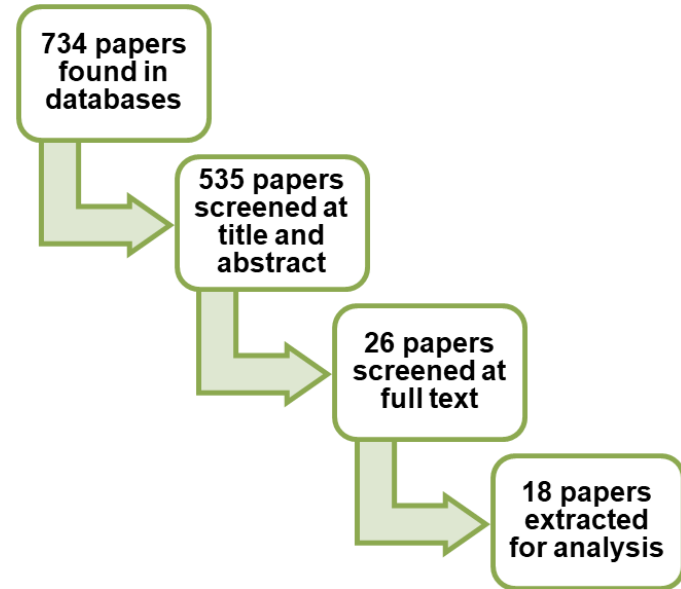
Methodology – Search Strings & Inclusion / Exclusion

Component	Search strings	Criterion	Main keywords		Vietnamese synonyms and relevant keywords
			English	Vietnamese	
Climate	Climat* OR weather OR flood* OR drought OR heatwave OR heat OR cold OR global warming OR hurricane OR typhoon OR monsoon OR rainfall OR adaptation OR mitigation OR greenhouse gas OR storm OR cyclone OR coastal erosion OR risk OR natural disaster OR wildfire		climate	khí hậu	thời tiết" "khí hậu" OR " OR "thiên tai"
			health	sức khỏe	bệnh" "sức khỏe" OR " OR "triệu chứng"
Health	Health OR disease OR infectious OR morbidity OR wellbeing of life OR mortality OR death OR accident OR well-being OR hospital* OR mental OR medical* OR emergency OR stroke OR maternal OR exhaustion OR cramp OR pregnant* OR fever OR burn OR stress OR skin	Challenges: finding search terms in English and Vietnamese that operated as synonyms	work	việc làm	làm việc ngoài trời" OR " lao động ngoài trời" OR " "việc làm ngoài trời"
Work	Outdoor work* OR porter OR construction OR vendor OR OR rider OR outdoor occupation		society	xã hội	xã hội" OR "con người" " OR "yếu thế"
Social	Gender OR age OR generation OR old OR young OR elderly OR poverty OR exclusion OR precari* OR migrant OR minority OR vulnerabl* OR informal* OR casual* OR contract* agreement	literature	urban	đô thị	"đô thị" OR "thành phố" OR "thị xã"
Urban	City OR cities OR town OR urban OR metropolitan	Date of publication			
Asia	Asia OR Vietnam OR China OR Timor Leste OR East Timor OR Indonesia OR Philippines OR Cambodia OR Thailand OR Laos OR Lao PDR OR Myanmar OR Burma OR Malaysia OR Brunei OR Brunei Darussalam OR Mongolia OR India OR Sri Lanka OR Nepal OR Pakistan OR Bangladesh OR Bhutan OR Afghanistan OR North Korea OR Democratic People's Republic of Korea	Geography			

Methodology – Literature Screening (3/3)

For literature written in English: We searched the strings on **Scopus, Web of Science and PubMed** and screened the resulting literature using Covidence:

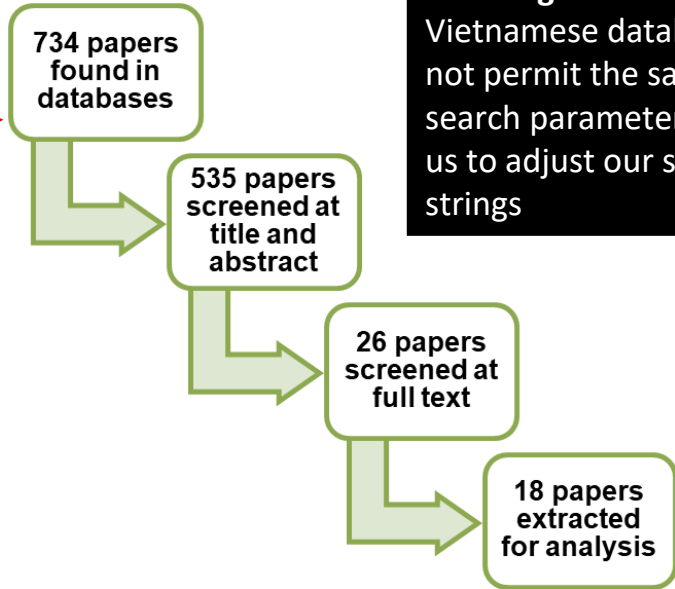
Component	Scopus	WoS	PubMed
Climate	8,284,985	5,710,208	3,059,869
AND Health	4,175,645	2,338,655	1,952,061
AND Work	44,224	23,130	8,008
AND Social	10,306	5,626	2,452
AND Urban	1,450	778	202
AND Asia	417	222	95
Total	734		



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Challenges: the Vietnamese databases did not permit the same search parameters, forcing us to adjust our search strings

English language

Vietnamese language

734 papers found in databases

88 papers found in databases

535 papers screened at title and abstract

46 papers screened at title and abstract

26 papers screened at full text

8 papers extracted for analysis

English language sources: WoS, Scopus and PubMed databases employed

18 papers extracted for analysis

Vietnamese sources: EBSCO Discovery Service of the Central Library of Vietnam; National Database on Science and Technology of the Ministry of Science and Technology of Vietnam and Google Scholar

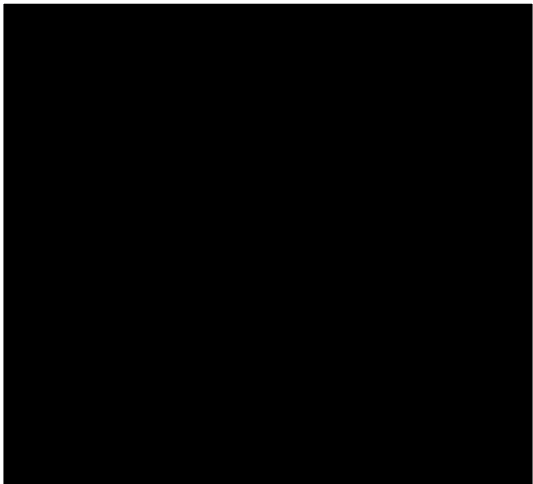
The review

	English language literature	Vietnamese language literature	Notes
Methods	Quant and mixed-methods dominate	Qual methods entirely lacking	Total attention paid in VN literature to predictive rather than interpretative methods
Weather	Focus on heat-related impacts	Broader consideration of what counts as 'climate'	Vietnamese literature on weather is less meteorological in focus – e.g. includes noise pollution. Cultural and linguistic factors at work.
Health	Hospital admission and elevated mortality used to indicate ill-health	Ill-health more exactly specified (urinary diseases, musculoskeletal issues...) and broader in scope	Vietnamese literature is less medicalised – ill health
Causes of Vulnerability	Focus on intersectionality and informal sector working	Focus on formal sector and discrete cause	Who 'counts' is different – the populations of interest are different
Responsibility for adaptation	Onus on government and society	Onus on the individual (e.g. exercising regularly, taking micronutrients, maintaining posture, changing positions at work)	English language literature addresses structural factors and places responsibility on state and society; VN literature assumes individual behavioural change
Policies	Focus on city-wide, national or regional interventions that can be scaled-up	Focus rather on short- and medium-term behavioural adjustments, enacted in places of	English language sources emphasise the generalisable and longer term; VN, on the particular, on context and

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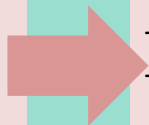
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Summary

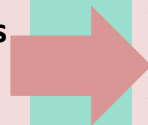
Knowledge gaps

- Incomplete and narrow data collection
- Limited demographic analysis
- Insufficient occupational focus
- Neglected structural factors
- Lack of knowledge on non-heat climate hazards
- Limited exploration of structural explanations of vulnerability



Policy implications

- Gaps in health system preparedness
- Need for targeted interventions
- Lack of comprehensive, integrated frameworks
- Under-reported health issues
- Health systems adaptation
- Individual and systemic coping strategies



Future research directions

- Interdisciplinary and longitudinal research
 - Spatial analyses and nexus thinking
 - Effectiveness of heat stress interventions
 - Socioeconomic and structural drivers
 - Cultural and behavioural influences
-

12th Asia Pacific Forum in Sustainable Development

Side Event on

Climate Change, Health & Well-being in Urbanising South & Southeast Asia

Wednesday, February 26, 2025

11:15 – 12:30 hours BKK Time

Presented by

Zia ur Rehman

Secretary General / Director

Asia Development Alliance

Climate Fund Utilisation by IFIs: Effects on Health & Wellbeing of Vulnerable Groups in South & Southeast Asia

- Southeast Asia is one of the most vulnerable regions to climate change and faces rising sea levels, heat waves, floods and droughts and increasingly intense and unpredictable weather events
- South Asia faces climate shocks often and it becomes the most vulnerable region of the world. In previous 20 years climate related disasters have affected more than 750 million people which is more than half of south Asia. These people are living in 8 countries of south Asia where their, health, well being and livelihoods are severely affected by climate change regardless of their caste, religion, ethnicity, class, age and gender.
- According to Swiss Re Institute (2021) Asia and ASEAN would have lost 26% and 37% of GDP respectively while correspondingly the global loss would be 18%

Investment Needs of South Asian & Southeast Asian countries for Comprehensive Response to Climate

Table 2: Investments Needs for Comprehensive Response to Climate Challenges in South Asia & Southeast Asian Countries

South Asian Countries Investment Needs for Comprehensive Response to Climate Challenges by 2030 (US\$ in billions)		Southeast Asian Countries Needs for Comprehensive Response to Climate Challenges by 2050 (US\$ in billions)	
Bangladesh	89.72 ¹	Cambodia	4.1 ²
India	293.00 ³	Laos	-
Nepal	33.04 ⁴	Myanmar	-
Pakistan	348.00 ⁵	Thailand	15.23 ⁶
Sri Lanka	10.40 ⁷	Vietnam	479.2-547.6 ⁸
Total	774.16	Total	498.53-566.93

Table 3: Climate Finance commitments by key IFIs in 5 South Asian and 5 Southeast Asian countries in by 2024

	South Asian Countries (US \$ in millions)					South east Asian Countries (US\$ in millions)					
	ADB	AIIB	IMF	NDB	WB		ADB	AIIB	IMF	NDB	WB
Bangladesh	400 ⁴¹	400 ⁴²	220 ⁴³	887 ⁴⁴	90 ⁴⁵	Cambodia	93.6 ⁴⁶	-	-	-	275 ⁴⁷
India	25 ⁴⁸	100 ⁴⁹	-	107 ⁵⁰	15 ⁵¹	Laos	2700 ⁵²	-	-	-	764 ⁵³
Nepal	30 ⁵⁴	115. ⁵⁵	41. ⁵⁶	-	10 ⁵⁷	Myanmar	4865.10 ⁵⁸	-	-	-	8.70 ⁵⁹
Pakistan	2000 annu ally for next 3 yrs. 60	220 0 ⁶¹	No ne due to inel igib ility 62	-	53 5 ⁶³	Thailand	-	-	-	-	6320 ⁶⁴
Sri Lanka	100 ⁶⁵	100 ⁶⁶	336 ⁶⁷	-	15 ⁶⁸	Vietnam	135 ⁶⁹	5000 ⁷⁰	-	-	11000 ⁷¹
Total	2555	291	597	116	31	Total	7793.7	5000	-	-	18367.
		5.3	.3	08	85						70

Needs and Climate Finance Commitment by IFIs/MDBs in South & Southeast Asia

- 8 south Asian nations would need roughly USD 200 billion per year out to 2030 at the current monetary value and the present level of global warming. This does not include the increasing costs of loss & damage caused by devastating floods, landslides and droughts faced by the region every year.
- According to the Aid Atlas, these countries received just **USD1.2 billion** a year on average in climate related development finance between 2002-2021, with around 75% going to India and 12% to Bangladesh though Pakistan's need to respond to these challenges is enormous but inflow of finance is not reflective of that reality

- Countries like Bangladesh, Pakistan and Thailand, which are low emitters of GHGs receive financial support for reduction of GHGs and not for adaptation and mitigation measures as they face extreme climate risks and challenges such as floods, cyclones, heat waves and food insecurity.
- This misalignment reflects the prioritization of financial interest by powerful stakeholders over the immediate needs of vulnerable nations and their communities, undermining efforts to protect lives and livelihoods in the regions most affected by the climate change like Mekong River Delta region in Southeast Asia.

Funds Utilization by IFIs/ MDBs in Health & Wellbeing of Vulnerable Communities

1. Reduced Mortality from Extreme Weather Events

Example: Climate-funded early warning systems (e.g., cyclone alerts in Bangladesh) and storm-resistant shelters reduce deaths during floods or cyclones.

Health Impact: Fewer injuries and fatalities from disasters like Cyclone Amphan (2020) in South Asia.

2. Mitigation of Climate-Sensitive Diseases

Example: Funding for water management systems (e.g., flood drainage in Jakarta) limits stagnant water, curbing mosquito-borne diseases like dengue and malaria.

Health Impact: Reduced outbreaks of water-borne illnesses in flood-prone areas.

3. Improved Food Security and Nutrition

Example: Drought-resistant crop initiatives in India's drought-prone regions stabilize food supplies.

Health Impact: Lower rates of child malnutrition and stunting linked to crop failures.

Enhanced Access to Clean Water and Sanitation

Example: Climate-resilient water infrastructure in Vietnam's Mekong Delta combats saltwater intrusion.

Health Impact: Reduced diarrheal diseases from contaminated water.

5. Air Quality Improvements

Example: Renewable energy projects (e.g., solar power in rural Cambodia) replace polluting fuels like kerosene.

Health Impact: Fewer respiratory illnesses, especially among women and children exposed to indoor air pollution.

6. Mental Health and Livelihood Stability

Example: Post-disaster mental health programs in typhoon-affected Philippines address trauma

Health Impact: Lower rates of PTSD and anxiety after climate shocks.

7. Strengthened Healthcare Infrastructure

Example: Flood-resistant health clinics in Nepal ensure continuity of care during monsoons.

Health Impact: Sustained access to maternal care and emergency services during disasters.

Systemic Challenges for Allocation & Accessibility of Climate Funds

1. Fragmented Bureaucratic Processes

- Complex GCF accreditation requirements delay projects in Nepal, where local NGOs lack financial systems to meet fiduciary standards.
- Only 12% of Bangladesh's health-focused climate proposals were approved in 2023 due to documentation gaps.

2. Data and Evidence Gaps

- In India's heatwave-prone states, limited disaggregated data on climate-health linkages (e.g., heatstroke mortality among street vendors) hinders targeted funding.
- 60% of Southeast Asian climate adaptation proposals fail cost-benefit analyses due to inadequate localized health impact projections.

Climate Fund Utilisation by IFIs: Effects on Health & Wellbeing of Vulnerable Groups in South & Southeast Asia

3. Misaligned Donor Priorities

- ADB's 2022–2024 climate portfolio allocated <10% to health systems in Southeast Asia, favoring energy transition over zoonotic disease prevention.
- Mental health support receives only 2% of post-disaster climate funds in the Philippines despite PTSD rates exceeding 30% after Typhoon Haiyan.

4. Marginalized Group Exclusion

- Indonesia's climate-resilient housing programs require land titles, excluding 70% of Jakarta's flood-affected informal settlers.
- Women in rural Odisha, India, face barriers accessing climate insurance due to patriarchal norms around financial decision-making.

5. Short-Term Funding Cycles

- A 3-year GCF grant for Vietnam's mangrove restoration (2021–2024) ended before ecological benefits materialized, leaving coastal communities vulnerable again.
- 80% of health adaptation projects in South Asia lack sustained financing for staff training or equipment maintenance.

6. Debt Burden Concerns

- Pakistan's \$500 million World Bank loan for 2022 flood recovery increased public debt while funding temporary health camps, not permanent clinics.
- Climate-vulnerable Sri Lanka and Laos face "adaptation debt traps," diverting 15–20% of health budgets to debt servicing.

7. Corruption and Leakage

- In Cambodia, 30% of a \$50 million climate-health grant (2020–2023) was diverted to non-priority regions due to political patronage networks.
- The Philippines now uses blockchain for GCF fund tracking, reducing leakage from 22% to 9% in 2023.

8. Capacity Limitations

- Understaffed health ministries in Myanmar and Laos struggle to design bankable proposals, accessing just 8% of available ASEAN climate funds.
- The ADB's \$15 million technical assistance program (2023) trains Thai/Vietnamese officials on climate-health proposal drafting.

9. Overlooked Intersectional Risks

- Bangladesh's cyclones disproportionately affect pregnant women (20% higher mortality risk), yet <5% of climate-health funds target maternal care.
- Climate-funded social protection in India often excludes Dalit communities facing caste-based barriers to disaster relief.

10. Legal and Regulatory Barriers

- Nepal's insurance laws block climate-risk coverage for informal workers (65% of the workforce), leaving them unprotected during floods.
- Indonesia revised procurement laws in 2023 to prioritize women-led cooperatives in climate livelihood programs.

Recommendations for Improving IFIs/MDBs led Climate Financing Programs and Practices

IFIs and other stakeholders should increase transparency, prioritize local needs in their interventions.

IFIs/ MDBs should support bottom-up approaches and promote gender equality through their interventions

IFIs/MDBs should ensure climate resilient public-private partnerships and leveraging private sector investments.

There is a dire need for greater support for climate resilience, ecosystem-based approaches, and addressing debt

sustainability issues.

There is a dire need for improved IFIs-led initiatives to address loss and damage caused by climate change,

particularly in South Asia and Southeast Asia, through increased funding, enhanced collaboration, capacity building, and

community-based approaches.

In a nutshell, a comprehensive strategy is required while addressing governance, financing, and capacity building, alongside promoting

knowledge sharing and learning among countries and communities.

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MOBILISING CAPITAL, MITIGATING RISK:
The Role of International Financial Institutions
in Advancing Climate Finance in
South Asia & Southeast Asia




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“Sun, Rain, Dust—No Problem!”

A Qualitative Analysis of Health and Livelihood Safety Adaptation Strategies in the Context of Precarious Work

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SocialLife Research Institute

Theory of Moral Economy by James Scott (1976):

“Safety First” principle:

- Peasants are **averse to risk** and focus on **avoiding drops**, not on maximising expected profits.
- **Opportunities for gain will be eschewed if** such opportunities even slightly increase the chance of falling below the subsistence line.

—→ **Safety = Keeping the livelihood not falling below the subsistence line**

Background

- Climate change poses significant challenges to Vietnam's cities, and outdoor workers are particularly vulnerable to the health risks caused by extreme weather events.
- This presentation highlights the qualitative findings about the impacts of climate change on the health of precarious outdoor workers in urban Vietnam.
- This is a part of the 30-month Wellcome Trust-funded project.



Community Approaching
(Jan – Apr 2024)

Field trips & Surveys
(May – Aug 2024)

IDIs & FGDs
(Sep – Dec 2024)

1. Research Questions

2. Theories

3. Methods

4. Key Findings

5. Discussion

6. Key Take-aways

1. Research Questions

This report addresses three following research questions:

1. What are the **underlying reasons behind precarious workers' decisions to participate in the outdoor labour market** in urban Vietnam?
2. **Where do health concerns related to climate change stand** among the priorities of outdoor workers?
3. What are their **coping mechanisms for climate change**?

3. Methods

Methodology: Qualitative

Locations: Ho Chi Minh City, Hanoi, Da Nang, and Can Tho

Objectives: Participants from the survey (in four sectors: street vending, ride-hailing services, construction, and porting)

Data Collection Techniques:

- *Ethnographic Fieldwork:* Participant observation, field diary documentation, and informal interviews.
- *In-depth Interviews:* Lasting 60–90 minutes, audio-recorded with signed written consent from participants.
- *Focus Group Discussions:* Groups of 6–9 participants to explore livelihood strategies and coping mechanisms.

4. KEY FINDINGS

4. Key findings

4.1

Pathways to informal work

4.2

Health Safety Second: When workers prioritise livelihood over health concerns

4.3

Creativity in Scarcity: Coping mechanisms to climate with resources

4.1. Pathways to informal work

Freedom

Freedom shaped by different demographics

- Male perspective
- Female perspective
- Elderly perspective

“Freedom capital” as an asset

- Income diversification from multiple sources
- Ability to fulfill socio-cultural obligations

Freedom as a strategic decision

- Combining both passive factors (resource constraints) and active factors (livelihood strategy)

4.1. Pathways to informal work

Freedom shaped by different demographics: Male perspective



- Familiar with self-employment in agriculture, value the autonomy and flexibility it offers over the rigid regulations of formal employment

*“The thought of having to wear a uniform and show up at specific times at a company - **I don’t like that at all**” (Interview with a construction worker, Male, District 12, Ho Chi Minh City)*

- Heard about many issues in formal work environments through their community

Why don't you try driving for Company X?" - "**I've heard many issues there nowadays. I know several blokes who used to drive for them, but they've all quit. I'm just focusing on saving enough to buy my own car to drive.**" (Interview with traditional motorbike driver, Male, Thu Duc agricultural wholesale market)*

*A taxi company that hires drivers as formal employees with labour contracts

4.1. Pathways to informal work

Freedom shaped by different demographics: Female perspective



- Balancing livelihood with family care and childcare responsibilities

*“When sales are this slow, have you ever considered looking for another job to have a more stable income?” – “I haven't thought about that. **If I were to take another job now, who would look after my two children at home?** Selling drinks here allows me to bring them to play, but where would I leave them if I worked elsewhere?”*

(Interview with female street vendor (selling beverages), Thu Duc agricultural wholesale market, Ho Chi Minh City)

*“I used to work at a garment factory, but now I've switched to being a Grab driver to accommodate picking up my little one, as they're in nursery school for just the morning session. If I worked at the factory, there would be **no one at home to care for or collect them from school.**”*

(Interview with female technology driver, District 12, Ho Chi Minh City)

4.1. Pathways to informal work

Freedom shaped by different demographics: Elderly perspective

- Unwilling to become a burden on their children

"I don't want to burden my daughter, who is busy caring for her young children. [...] When she makes money from selling, I even send some to support her daughter."

(Interview with female street vendor, Thu Duc wholesale market,
Ho Chi Minh City)



- Preserving paternal dignity and maintaining children's respect

"I have one principle: never ask my children for money. My son greatly respects me at home. If I want to maintain his respect, I must remain self-reliant."

(Interview with male traditional motorbike driver, Thu Duc agricultural wholesale market, Ho Chi Minh City)

4.1. Pathways to informal work

“Freedom capital” as an asset

Elderly’s responsibility to maintain connections and affirm their position within the community

*“Young people like you probably don’t face this issue. But for someone my age, I take the entire final month of the year off from selling to return to my hometown. When relatives and extended family invite you to death anniversary ceremonies, **one cannot be absent as an elder. Working for a company wouldn’t allow such lengthy leave.**”*

(Interview with elderly male street vendor, Hanoi)



4.1. Pathways to informal work

Freedom as a strategic decision



- **Workers' occupational choices reflect the interaction between labor market demands and their available personal resources**

"Being a construction worker is just something I know how to do; I don't have any qualifications since I've been doing this job since I was 17."

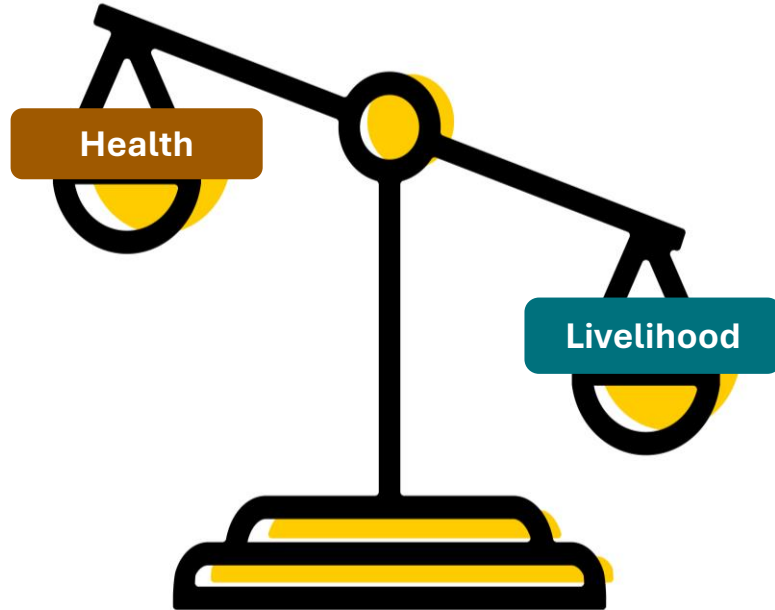
- Construction Worker, Male, Ho Chi Minh City

"What other job could I do now? I can't even read or write."

- Porter, Male, Ho Chi Minh City

- **Their choice of informal work represents a deliberate trade-off between formal sector constraints and the value of personal freedom**

4.2. Health Safety Second: When workers prioritise livelihood over health concerns



4.2. Health Safety Second: When workers prioritise livelihood over health concerns

Redefining the "safety first" principle



- Shifting from workplace safety to livelihood security

They willingly accept working under harsh sun, rain, pollution, and other health risks in exchange for autonomy in earning their livelihood

- "Freedom of choice" becomes a more vital form of livelihood insurance than "safe working conditions"

4.2. Health Safety Second: When workers prioritise livelihood over health concerns

From health risk normalization...



Health Beliefs

*“Working outdoors means you must endure the sun, rain, and dust, right? **There’s no problem!** If one saw any problem, they wouldn't have chosen this job.”*

(Focus group discussion at Thu Duc wholesale market,
November 2024)

4.2. Health Safety Second: When workers prioritise livelihood over health concerns

From health risk normalization...



- “Psychological defense mechanism”: accepting risks as an inherent part of the occupation

*“As porters, we **work regardless of rain or shine**. During sunny seasons, the work is more strenuous but **brings better income**. During rainy seasons, there's less work due to fewer construction projects.”*

(Interview with a porter in Da Nang, November 2024)

4.2. Health Safety Second: When workers prioritise livelihood over health concerns

... to barriers in accessing formal health services

- Financial barriers to regular health check-ups
- Lack of voluntary health insurance
- High costs of general health examinations - over 300,000 VND (\approx 9,73 GBP) for basic medical services and potentially over 1,000,000 VND (\approx 32,44 GBP) for advanced services

4.3. Creativity in Scarcity: Coping mechanisms to climate with resources



4.3. Creativity in Scarcity: Coping mechanisms to climate with resources

Utilising unverified information sources



- Accessing health information from freely available sources: **Word of mouth, folk knowledge, or social media** (YouTube, TikTok)

“Whilst selling beverages, I often watch YouTube in my spare time to learn about various remedies and treatments people recommend. I jot them down on paper to try them myself later or share with others who might need them.”

(Interview with a female street vendor, Thu Duc agricultural wholesale market, November 2024)

4.3. Creativity in Scarcity: Coping mechanisms to climate with resources

Low-cost treatments: Seeking Folk Remedies



- The preference for traditional remedies, which are regarded as safe and effective based on workers' personal experiences:

"Dear, I'm having low blood pressure, it comes suddenly, you see. When it's sunny, very sunny, and suddenly turns cool, or when it rains... that's when I tend to get it [...] He does 'cao gio' (coin rubbing), for me twice; whenever it happens, he does it twice, and that's all it takes (to recover)." (Female, 70, street vendor, Hanoi)

4.3. Creativity in Scarcity: Coping mechanisms to climate with resources

Personal labour protection measures

“As porters, we work regardless of rain or shine...”

(Interview with a porter in Da Nang, November 2024)

Equipment

- Hat, gloves, umbrella for the phone (for motorbike taxi driver), sun-protective clothing

Practices

- Drinking more water, resting more regularly, using traditional medicine, and watching free tips on social media



4.3. Creativity in Scarcity: Coping mechanisms to climate with resources

Personal labour protection measures

Hiding under the bridge



3. Creativity in Scarcity: Coping mechanisms to climate with resources

Personal labour protection measures

Drivers taking a rest beneath the shadow of the trees



The community planned the tree to provide shade in the Thu Duc wholesale market



5. DISCUSSION

5.1. Subsistence as a Moral Imperative

J. Scott (1976)'s view on “**subsistence ethic**”: Subsistence is not merely a material need but also a *moral standard* that is valued and safeguarded by the community.
→ When precariats' subsistence rights are threatened, this not only violates their basic needs but also disrupts the moral order, prompting acts of resistance from vulnerable groups.

Policy Implication:

- **Should:** take subsistence ethics into account in the development of welfare policies for their citizens (e.g. micro-insurance for outdoor workers)
- **Shouldn't:** enforce any terms violating their needs to secure their lives.

5.2. Autonomy as a new form of Safety

Expanded Subsistence Ethics: Outdoor workers need not only livelihood security, but also self-determination, dignity protection, and responsibility to family and community.

Autonomy becomes:

- A sort of *Capital*
- New form of *Safety*

Policy Implications:

- **Should:** expand moral standards in the economy – Protecting informal workers without violating their freedom needs
- **Shouldn't:** victimise precarious outdoor workers

6. Key take-aways

- Outdoor precarious workers **seek for livelihood security at the *Subsistence Line*** so that they cannot abandon their jobs.
- More than subsistence, they also **need self-determination, dignity, and family and community responsibilities.**
- **Health Safety Second:** Livelihood security is prioritised over health security
- Coping mechanisms: **self-protective, low-cost, and unverified measures**

Policy implications:

Should

- **Take subsistence ethics into account in the development of welfare policies**
- **Expand moral standards in the economy** – Protecting informal workers **without violating their needs for autonomy**

Shouldn't

- **Victimise** precarious outdoor workers
- Enforce any terms **violating their needs to secure their lives**

Project

Funding:

BRITISH COUNCIL (CATALYST GRANT, THAI-
UK WORLD-CLASS UNIVERSITY CONSORTIUM)

Participating Institutions:

CHULALONGKORN UNIVERSITY
(THAILAND; PI PANNEE
CHEEWINSIRIWAT),

UNIVERSITY OF SUSSEX (PI JOHN BARLOW), BRISTOL
UNIVERSITY AND THE LONDON SCHOOL OF ECONOMICS
AND POLITICAL SCIENCE

Contributing Authors:

Background

- Climate Change and natural disaster have become fundamental issues for many nations leading to a proliferation of mitigation and adaptation plans.
- However, it is quite difficult to differentiate the impacts of climate change from other disasters that local communities face.
- Climate change awareness depends on the level of education and income of residents (Jatav, 2024).
- Moreover, centralisation of policy formulation and implementation remains a major problem, constraining the effectiveness of multilevel governance in implementing climate change related policies (Chaiyapa et al., 2024).

Therefore, it is interesting to explore climate change perceptions and related policies at multiple levels- central government, local government, and at the local level.

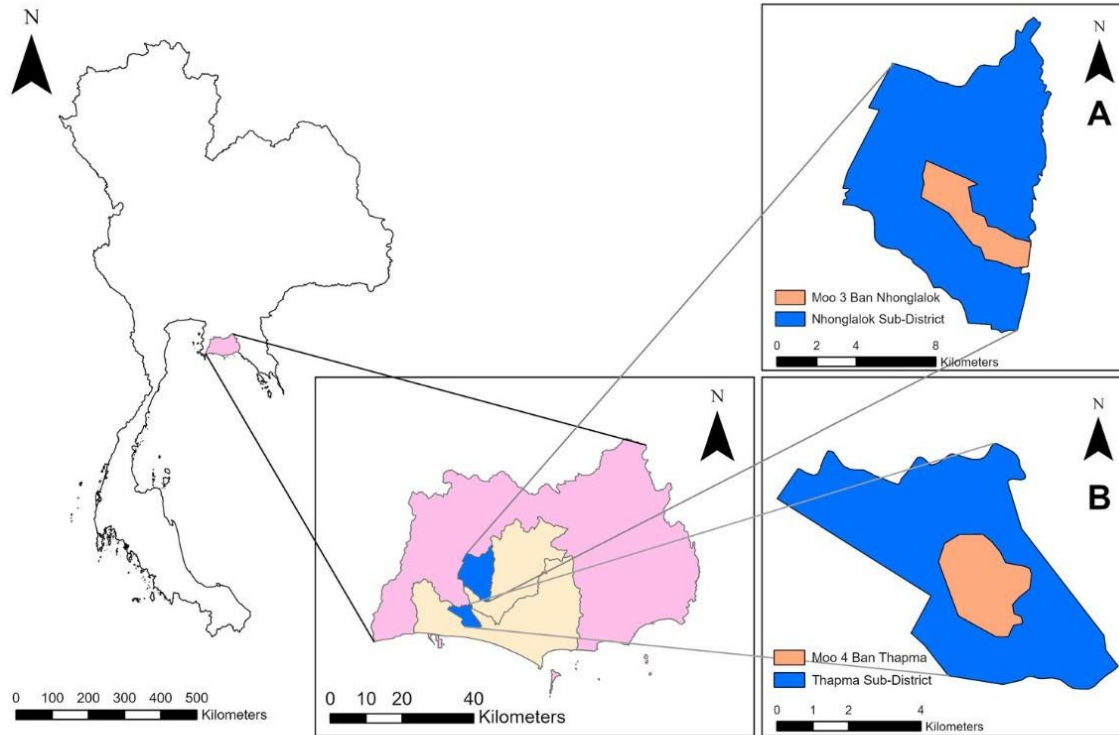




Research Questions

1. How is climate change perceived by central government authorities, local government authorities and local populations?
2. How are climate change, floods, and drought linked?
3. How do mitigation and adaptation policies for flood, droughts, and climate change play a role at national, provincial and local levels?

Study Area: Rayong Province, Thailand



A) Moo 3 Ban Nhongllok, Nhongllok Sub-District, Ban Khai District

B) Moo 4 Ban Thapma, Thapma Sub-District, Mueang Rayong District

Methodologies

1. In-depth Interviews and Focus Group Discussions

- Purposive sampling and snowball sampling

2. Research participants

- Key informants: 2 levels (11 persons)
 - **Central Government Authorities:** National Hydroinformatics Data Centre, Department of Public Works and Town & Country Planning, Geo-Informatics and Space Technology Development Agency and Department of Climate Change
 - **Local Government Authorities:** Rayong Provincial Office of Disaster Prevention and Mitigation, Rayong Royal Irrigation Department, Mayor of Thapma, Head of Thapma Village, and Head of Nonglaloek Village

Category	Public sector in Rayong (Local)	Public sector in Bangkok (Central)
Sample size	3	6
Gender	Male: 3 (100%)	Male: 3 (50%) Female: 3 (50%)
Age	30-60 years (100%)	
Occupation	Administration (100%)	
**Special in the form of a group organization. : Team of staff and researchers from the National Hydroinformatics Data Center (1 Team)		

Methodologies

2. Research participants

- Local residents from two villages – Thapma and Nonglalok

3. Total number of research participants: 20 persons

4. Data Collection Period from June – December 2024

5. Thematic analysis

Category	Moo 4 Thapma	Moo 3 Nonglalok	Village headman
Sample size	5	4	2 (Thapma & Nonglalok)
Gender	Male: 3 (60%) Female: 2 (40%)	Male: 3 (75%) Female: 1 (25%)	Male: 2 (100%)
Age	<30 years: 1 (20%) 30-60 years: 2 (40%) >60 years: 2 (40%)	30-60 years: 3 (75%) >60 years: 1 (25%)	30-60 years: 2 (100%)
Occupation	Student: 1 (20%) agriculture: 1 (20%) Head of village Health Volunteers: 1 (20%) Administration: 2 (40%)	Agriculture: 2 (50%) Community Health Worker: 1 (25%) Students shuttle driver: 1 (25%) ⁴	Administration: 2 (100%) *village headman
Period of living in the community	10-30 years: 1 (20%) >30 years: 4 (80%)	10-30 years: 1 (25%) >30 years: 3 (75%)	
Directly affected by flooding	Some years: 5 (100%) Currently, it is more affected by urbanization .	Some years: 4 (100%) Currently, it is more affected by drought.	-

Analysis: 1. How is climate change perceived by central government authorities, local government authorities and local populations?

Central Government Authorities' Perception

Central government officials expressed the view that most local residents do not understand climate change. Local populations, these officials think, are only concerned about issues that affect their lives such as drought and flooding.



Analysis: 1. How is climate change perceived by central government authorities, local government authorities and local populations?

Local Government Authorities' Perception

- We (Thailand) are now experiencing climate change.
- The local residents **do not understand climate change.** They do not know climate change.



“The locals do not understand climate change situation because climate change seem to be distant from their lives. They may think there is no climate change.” Acting Head of the Rayong Provincial Office of Disaster Prevention and Mitigation.

Analysis: 1. How is climate change perceived by central government authorities, local government authorities and local populations?

Local communities' views



“climate change causes drought. It has become more severe lately.”
(Nonglajok villager)

“Irrigation Systems are not enough to save water for dry seasons, so the communities has to buy freshwater.”
(Thapma villager)

“In the past, we can drink rainwater. Now rainwater is undrinkable. This is due to factories, dust or climate change.” (Nonglajok villager)

- Local people often do not understand the science of climate change.
- **However**, they are conscious of changes in weather patterns, and they refer to this as **climate change!**



Analysis: 1. How is climate change perceived by central government authorities, local government authorities and local populations?

Causes of climate change

Central Government	Local government	Local populations
Green house gas emissions	Global warming	Land conversion e.g. in- filling of swamps, expansions of industrial estates
Urban activities (urban heat island)	Both nature and human	Human actions e.g. deforestation
Human actions e.g. land conversion, burning season, waste management	Human actions e.g. reducing green space, increasing number of factories	
Lack of awareness of the need to preserve natural resources	Pollution/smoke	

Analysis: 2. How are climate change, floods, and drought linked?

➤ Central government authorities agree that **climate change is one of floods and drought causes** because climate change are fundamentally related to environmental systems



➤ Local authorities and the locals are **divided**, some of them⁷⁹ agree with the central government. Some says that **climate change cause drought while flooding causes by land conversion.**

Analysis: 3. How do mitigation and adaptation policies for flood, droughts, and climate change play a role at national, provincial and local levels?

- **Locals are unaware of the policies of central government.**
- **Some locals blamed the government for not doing more to help them.**
- **Local authorities have no direct policies related to climate change,** but they do have policies and action plans for mitigation and adaptation to floods and droughts
- At the **national level,** planning authorities and the climate change department do have **projects, policies, and action plan to establish mitigation and adaption for climate change.**



"The government hasn't helped us at all." Nonglajok villager

"We have no specific policies. They mostly talk about forest fire prevention, but it hasn't been a major focus." Head of Thapma Village

Conclusions

- Both central and local governments underestimate the locals related climate change knowledge and understanding.
- But, *how* the effects of climate change are understood and experienced between government agencies and the locals are not the same.
- There is therefore a disconnect between policies related to climate change from central agencies, those tasked with implementing these policies at local levels, and local populations. 81
- Climate change is related to health and well-being of the locals such as freshwater, drinkable water, air pollution. Nevertheless, there are very few policies that directly help with health and well-being issues of the locals.





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