

POLICY RECOMMENDATIONS

STRENGTHENING HEALTH PROTECTION FOR INFORMAL OUTDOOR WORKERS IN THE CONTEXT OF CLIMATE CHANGE IN CAN THO

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1. BACKGROUND

In recent years, climate change has increasingly affected people's lives and livelihoods in Vietnam. Evidence from national and international research identifies the Mekong Delta as one of the areas in Southeast Asia most vulnerable to climate change and sea-level rise.

As a major economic, commercial, health and education centre of the Mekong Delta, Can Tho has considerable development opportunities, but is also directly affected by climate-related hazards such as prolonged heat, heavy rainfall, high tides, urban flooding, riverbank erosion and changes in water resources.

Extreme weather events affect not only infrastructure, transport and livelihoods, but increasingly also public health and the wider workforce.

In this context, informal outdoor workers are among the most vulnerable groups. They play an important role in the urban economy and include:

- Street vendors;
- Traditional and app-based motorcycle taxi drivers;
- Construction workers;
- Porters and transport workers;
- Waste and recyclable collectors;
- Workers in local markets, floating markets and other outdoor settings.

These workers are essential to the city's everyday economy. What they have in common is that they often have little choice but to continue working regardless of how severe the weather becomes. Their income depends on each day worked, they have no insurance to compensate for income lost when weather prevents them from working, there is no employer responsible for their protection, and their access to health care and social protection remains very limited.











In recent years, Can Tho has made important efforts in a number of areas:

- Responding to climate change;
- Climate-resilient urban development;
- Environmental protection;
- Health care for the city's population;
- Implementation of social protection policies.

The city has also implemented programmes on sustainable urban development, disaster risk management, strengthening climate resilience, primary health care and community health. These efforts demonstrate the city government's strong commitment to sustainable development and to improving people's quality of life.

However, the research points to a concerning reality: informal outdoor workers are falling into gaps between policy areas. Climate policies do not specifically address them, labour policies do not yet reach them effectively, and the health system has no mechanism tailored to their circumstances. Meanwhile, they continue to face heat, storms, heavy rain and high tides each day in order to earn a living.

This is not an issue that can be addressed by one sector alone. An effective response requires an integrated, intersectional approach, grounded above all in the realities and needs of workers in Can Tho.

2. EVIDENCE BASE FOR THE POLICY RECOMMENDATIONS

These policy recommendations draw on two complementary sources of evidence conducted by the Vietnam Medical Association (VMA) and the Institute for Development and Community Health (LIGHT): field research in four major cities and a review of relevant legal and policy documents. Both were undertaken as part of the Wellcome-funded research project, The Health Impacts of Climate Change on Precarious Outdoor Workers in Vietnam's major cities. The research programme is led by the National Centre for Social Research (NatCen), United Kingdom, in collaboration with VMA, LIGHT, the SocialLife Research Institute and the University of Bristol. The Medical Associations of Ho Chi Minh City, Da Nang and Can Tho contributed to the implementation of the research in the study cities.

SOURCE 1: FIELD RESEARCH IN FOUR MAJOR CITIES - HANOI, DA NANG, HO CHI MINH CITY AND CAN THO (MAY–DECEMBER 2025)

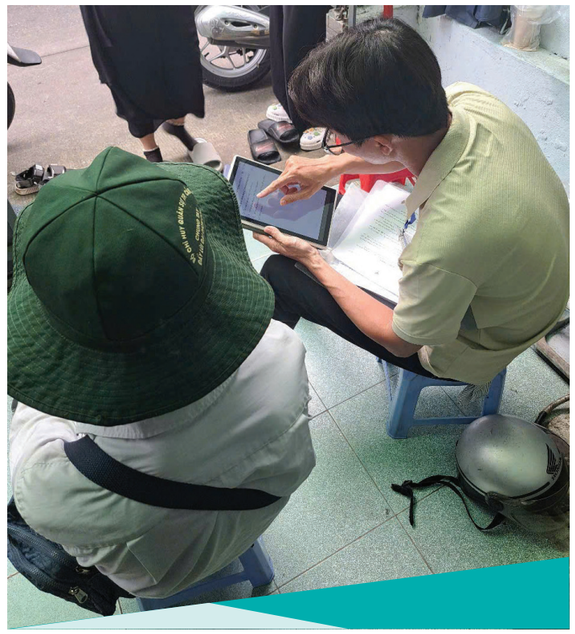
Qualitative and quantitative research activities were conducted in Hanoi, Da Nang, Ho Chi Minh City and Can Tho, consisting of:

- A quantitative survey of **1,208 informal outdoor workers** in four occupational groups: street vendors, motorcycle taxi drivers, porters and construction workers;
- Qualitative research included **76 in-depth interviews with workers**, representatives of central ministries and agencies, international organisations, independent experts and city-level technical agencies, and eight focus group discussions involving **48 representatives of agencie**s and organisations at commune/ward level across the four cities (124 participants in total).

The study collected comprehensive information on workers' socio-economic characteristics and living conditions; exposure to extreme weather; physical and mental health; occupational accidents; awareness of and responses to climate change; and workers' views on the forms of support they needed.

SOURCE 2: REVIEW OF 45 POLICY DOCUMENTS (2024)

A systematic review was undertaken of legal and policy documents relating to climate change, labour, health and social protection at both central and local levels. The review identified an important policy gap: although there are many legal and policy instruments in each individual field, **there is currently no policy that integrates all three dimensions - health protection, climate change response and social protection** - for informal outdoor workers. This is the gap that these recommendations seek to address.



The research was funded by the Wellcome Trust, and conducted by the Vietnam Medical Association (VMA), the LIGHT Institute for Community Health Development and the Ho Chi Minh City Medical Association, with technical and financial support from the National Centre for Social Research (NatCen), United Kingdom.

The research identified several key issues:

- Outdoor workers experience very high levels of climate exposure;
- Effects on physical health, mental health and livelihoods are already evident;
- Workers' capacity to respond and their access to social protection remain limited;
- Current policies contain few interventions specifically designed for informal outdoor workers.

Taken together, the field research and policy review indicate that protecting **the health of outdoor workers should be considered a priority in climate adaptation and sustainable urban development in Can Tho.**



3. KEY RESEARCH FINDINGS

3.1. Outdoor workers in Can Tho experience very high levels of climate exposure

The research found that most outdoor workers in Can Tho have to work for prolonged periods under harsh weather conditions.

- In Can Tho, 98.5% of workers reported exposure to hot weather during the 12 months before the survey;
- 63.5% had been exposed to heavy rain; 30.7% had experienced flooding; and 21.5% had been exposed to storms or severe thunderstorms;
- Average working time was about 55 hours per week;
- Across the full study sample, only 19.1% were able to avoid working during periods of peak heat;
- Only 1.4% were able to move to other work that was less affected by the weather.

Many outdoor workers in Can Tho simultaneously face:

- Prolonged heat;
- Heavy rainfall;
- Flooding;
- Environmental pollution;
- Unsafe working conditions;
- Long working hours outdoors.

The research found that:

- Across the full study sample, 55.6% of workers were simultaneously exposed to 6–10 climate- and environment-related risk factors;
- 29.1% were simultaneously exposed to 11–15 risk factors.

These overlapping exposures may increase cumulative risks to physical and mental health over the longer term.

3.2. Climate change is already having clear health effects on outdoor workers in Can Tho

Our field research shows that extreme weather events affect not only working conditions and livelihoods, but are already having clear health effects on outdoor workers in Can Tho.



Effects on physical health

- The health symptom figures below refer to the full study sample, not to Can Tho alone: 74.8% of workers frequently felt tired or exhausted during periods of hot weather;
- More than 60% reported persistent musculoskeletal pain;
- Across the full study sample, 68.5% reported at least one musculoskeletal symptom after a working day;
- 7.4% of workers reported signs related to cardiovascular conditions;
- 6.4% reported respiratory illness during the previous 12 months;
- 22.8% reported other notable health problems related to working conditions and extreme weather.

In addition, many workers reported:

- Reduced ability to work during prolonged periods of hot weather;
- Dehydration, exhaustion and reduced concentration when working outdoors;
- Health symptoms and problems tending to worsen during periods of hot weather, storms or heavy rain.

The study also recorded occupational accidents associated with:

- Extreme heat;
- Heavy rain and storms;
- Flooding and hazardous traffic conditions.

This indicates that climate change affects not only the working environment, but also increases the risk of injury and unsafe working conditions among informal outdoor workers.

Effects on mental health

In addition to physical health problems, the research shows that extreme weather and livelihood pressures are having notable effects on the mental health of outdoor workers in Can Tho.



The survey found that:

- 41.3% of workers in Can Tho said extreme weather had negatively affected their mental health;
- 32.8% said their work and income had been significantly affected by extreme weather conditions.

Assessment using the DASS-21, a standardised instrument used to screen for symptoms of depression, anxiety and stress, also identified notable symptoms of anxiety and stress:

- 10.7% of workers had mild anxiety, 12.7% moderate anxiety, 2.5% severe anxiety and 3.6% extremely severe anxiety. Can Tho also had the highest proportion of workers with extremely severe anxiety among the four study cities;
- Among Can Tho participants with a valid DASS-21 stress score (n=197), 7.6% had mild stress, 3.6% moderate stress, 3.0% severe stress and 0.5% extremely severe stress.

The research also found a clear association between mental health and other health risks:

- In the regression analysis, workers with anxiety symptoms had 1.94 times the odds of reporting physical-health impacts compared with workers without anxiety symptoms.
- Workers with stress symptoms had 1.77 times the odds of reporting physical-health impacts compared with workers without stress symptoms. These findings indicate associations and should not be interpreted as causal effects.

Taken together, these findings indicate that mental health effects should be considered alongside physical health and livelihood impacts when assessing climate-related risks for outdoor workers.

Growing pressure on the health system

Representatives of several health facilities in Can Tho reported an increasing trend in:

- Cases of exhaustion and heat stroke;
- Stroke cases during prolonged periods of hot weather;
- Worsening respiratory and cardiovascular conditions during extreme weather.

Some health workers noted that periods of extreme heat can increase pressure on emergency and treatment services, particularly for people who work outdoors for long hours.

The findings illustrate how climate-related health and livelihood impacts can reinforce one another:

Extreme weather

→ Declining health

→ reduced capacity to work

→ reduced income

→ reduced access to health care and social protection

→ greater vulnerability to subsequent climate impacts.

Without timely and appropriate support, this cycle may contribute to greater health inequalities and increased pressure on social protection systems in the future.

3.3. Capacity to respond and access to information remain limited

Although most workers were aware of increasingly unusual weather patterns, their knowledge and capacity to respond remained limited.

- Only 3.9% had above-average knowledge of climate change and response measures;
- 91.0% of Can Tho participants were classified as having below-average climate-change awareness in the latest full report, while 9.0% were at the average level and none were above average. This replaces the earlier approximate figure because the latest report uses a revised indicator.
- Only 25.2% actively sought information related to climate change and health protection.

Most current responses rely mainly on personal experience and short-term measures, such as:

- Taking short breaks during heavy rain;
- Using sun-protective clothing or raincoats;
- Limiting travel during extreme weather.

At the same time, workers continue to lack:

- Early-warning information;
- Guidance on health protection;
- Rest points offering shelter from heat;
- Appropriate and timely health and social support.

3.4. Important gaps remain in access to social protection and health protection

The research found that outdoor workers continue to face considerable difficulties in accessing health protection and social protection services:

- Health insurance coverage among surveyed workers in Can Tho was 60.2%, the lowest among the four study sites;
- Participation in voluntary social insurance remained very low;
- 49.2% lived in rented accommodation or boarding houses;



- Across the full study sample, only 8.7% had received formal professional or vocational training; the source report does not establish this as a Can Tho-specific estimate.

At the same time, workers expressed clear needs for support:

- 81.1% wanted support with health insurance;
- 68.7% wanted support with social insurance;
- 75.1% wanted support with health care;
- 71.6% wanted public rest stations offering shelter from heat and rain.

The findings show a clear unmet demand for accessible health and social protection.

4. CONCLUSION

In recent years, Can Tho has made important efforts in climate change response, sustainable urban development and health care. However, evidence from this study shows that the effects of climate change on outdoor workers are becoming increasingly evident and warrant greater attention in local policies.

These effects extend beyond the environment and livelihoods and are directly affecting:

- Physical health;
- Mental health;
- Labour productivity;



- Social protection;
- The local health system.

As Can Tho moves towards green development, climate adaptation and improved urban quality of life, stronger health protection for outdoor workers can contribute to:

- Protecting the city's workforce;
- Reducing pressure on health and social protection systems;

5. POLICY RECOMMENDATIONS

RECOMMENDATION 1. STRENGTHEN THE INTEGRATION OF OUTDOOR WORKER HEALTH INTO THE CITY'S CLIMATE ADAPTATION PLANS

The city already has climate adaptation plans. In the coming period, greater attention should be given to informal workers who experience high levels of exposure and have limited access to social protection.

RECOMMENDATION 2. STRENGTHEN INTERSECTORAL COORDINATION TO PROTECT VULNERABLE GROUPS OF WORKERS ACROSS:

- Health;
- Environment;
- Labour;
- Social protection;
- Urban planning.

This is a key factor in improving policy effectiveness.

RECOMMENDATION 3. DEVELOP PRACTICAL SUPPORT MODELS FOR OUTDOOR WORKERS

- Rest stations offering shelter from heat and rain;
- Public drinking water;
- Early warnings for extreme weather events;
- Health information and communication;
- Guidance on prevention and first aid for heat exhaustion and heat stroke;
- Mobile health-care models for outdoor workers.

RECOMMENDATION 4. IMPROVE ACCESS TO HEALTH CARE AND SOCIAL PROTECTION

- Health insurance;
- Voluntary social insurance;
- Primary health care;
- Free periodic health checks;
- Support for low-income workers to access health services.

RECOMMENDATION 5. STRENGTHEN COMMUNICATION AND AWARENESS ON:

- Climate change and health;
- Prevention of heat exhaustion and heat stroke;
- Climate-related mental health;
- Outdoor occupational safety;
- Skills for responding to extreme weather.

RECOMMENDATION 6. PROMOTE RESEARCH AND MONITORING OF CLIMATE-RELATED HEALTH ISSUES:

- Monitoring heat-related illnesses;
- Tracking climate-related occupational health impacts;
- Strengthening the use of research evidence in local policy-making.

Protecting the health of outdoor workers today is an investment in the resilience, labour productivity and sustainable development of Can Tho in the future.

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