
HONG KONG JUST TRANSITION REPORT

# Building Partnerships to Achieve a Climate-just City

PARIS WATCH

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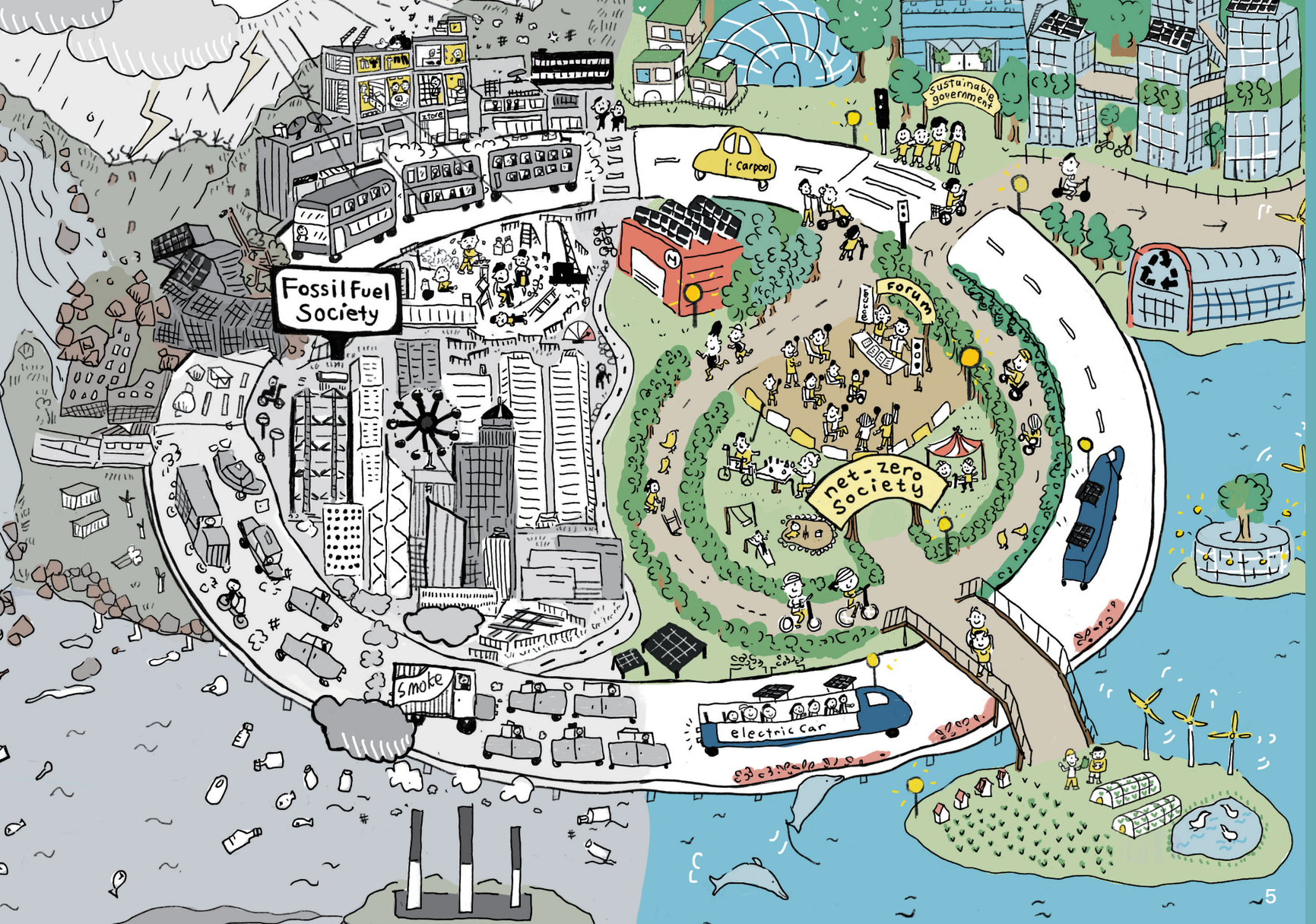
# CONTENTS




If Hong Kong is achieving net zero by 2050, extreme weather such as landslides, flooding and heat waves will be diminished, and our living environment will become more just and inclusive.

# Hong Kong Just Transition Road Map

Roadmap Artist : Carmen Lau

## HEADLINE

Hong Kong's civil society proposes a vision for our city's future, with climate actions that are just and inclusive. However, to achieve this vision, we need partnership between the government, business and all walks of life. All stakeholders, especially women and vulnerable groups, should be able to participate, from the formulation of policies to the implementation of measures. This report is our first-ever attempt to discuss climate justice in Hong Kong. We hope that through dialogue we will be able to resolve differences in advancing a just transition, in order to realise a climate-just society.

# FOREWORD

According to the Intergovernmental Panel on Climate Change (IPCC)'s Sixth Assessment (AR6) Working Group II (WG2) Report launched in February 2022[1], more than 40% of the nearly 8 billion people in the world are facing the threat of more frequent climate disasters. Even if we adopt climate adaptation measures, the effectiveness may be offset by the increasingly warming world, making them less effective against dire catastrophes. **The report further notes that climate change disproportionately and inequitably affects vulnerable groups**. Climate impacts are coupled with structural poverty and social and economic inequalities, exacerbating the plight of people with disabilities and the urban poor. In addition, the transition to a low-carbon economy may also affect the employment opportunities of existing workers. In places where workers' bargaining power is weak, the energy transition is more likely to lead to unfair labour treatment.

Therefore, when we take action on climate change, including mitigation and adaptation measures, we must safeguard the well-being of vulnerable groups to achieve a more fair, just and equitable world. The Paris Agreement mandates "the imperatives of a just transition of the workforce and the creation of decent work and quality jobs in accordance with nationally defined development priorities".[2] This is the first time that "just transition"[3] appeared in an official UN text and was recognized as an important principle of climate action, emphasizing the relationship between climate action and climate justice. The concept of a just transition is being actively advocated around the world.


1 /"Climate change: a threat to human wellbeing and health of the planet. Taking action now can secure our future,"Inter-governmental Panel on Climate Change, 28 February 2022. https://www.ipcc.ch/2022/02/28/pr-wgii-ar6/
2 /United Nations Framework Convention on Climate Change (UNFCCC), "The Paris Agreement," Access on 8 July 2022. https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement
3 /The phrase "just transition" was included as a key principle in the Paris Agreement on Climate Change: "Taking into account the imperatives of a just transition of the workforce and the creation of decent work and quality jobs in accordance with nationally defined development priorities." (Please refer to https://unfccc.int/sites/default/files/english_paris_agreement.pdf)

# Climate change exacerbates social injustice, vulnerable groups most affected

Vulnerable groups are not only susceptible to the impacts of climate change, but also to the impacts of climate action and the transition to a low-carbon economy. In fact, under extreme weather, the quality of life of citizens declines, and negative sentiment rises. Sports, social activities, tourism and entertainment are also reduced. In addition, there is a causal relationship between increased heat or rainstorms and mental health problems, with increased incidents of suicide, anxiety, depression, and even mental illness, as well as psychiatric hospital admissions and clinic visits. The long-term impact of extreme weather on vulnerable groups should not be ignored.

The Paris Agreement requires countries to implement climate change mitigation and adaptation measures. However, climate actions may fail to address existing social inequalities and even exacerbate them. To achieve climate justice and promote a just transition has become an important principle for implementing climate action. During the 2017 United Nations Climate Change Conference (COP23), held in Germany and presided over by Fiji, the Talanoa Dialogue approach was adopted to resolve differences on the implementation of climate action. Talanoa is a practice in Pacific Island communities of open discussions between parties who refrain from prejudice or judgement.[4]

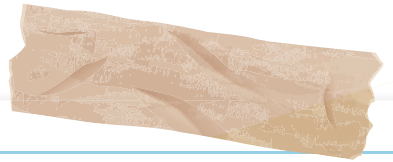

4 /"'Talanoa': How can a traditional Fijian gathering bring people and nature together to stop climate change," Nature4Climate, 2022. https://nature4climate.org/news/talanoa-how-can-a-traditional-fijian-gathering-bring-people-and-nature-together-to-stop-climate-change/

# Hong Kong needs a strong voice to achieve climate justice and promote just transition

Hong Kong is a densely populated and hilly coastal city vulnerable to extreme weather. Meteorologists predict that climate change will lead to stronger typhoons and hotter, longer heat waves, especially impacting children and the elderly, persons with physical and mental disabilities, and outdoor workers. We believe that Hong Kong should step up efforts toward a just transition. Since 2018, we have conducted a series of climate community dialogues with civil society organizations, using the Talanoa approach. **We advocate for a just transition to mitigate and adapt to the impact of global warming on people's livelihoods by networking with the vulnerable groups affected by extreme weather and climate actions**.

This report sets out the findings, using the Talanoa dialogue as a research methodology, [5]and discusses the social impacts of a transition to a low-carbon economy. It advocates that climate action and a just transition for Hong Kong should be implemented for people of all walks of life; that climate adaptation measures for vulnerable groups must be included; and it outlines a possible approach towards a just transition in Hong Kong.

5 / Please refer to Annex 3.



**Mr. Wong (pseudonym)**

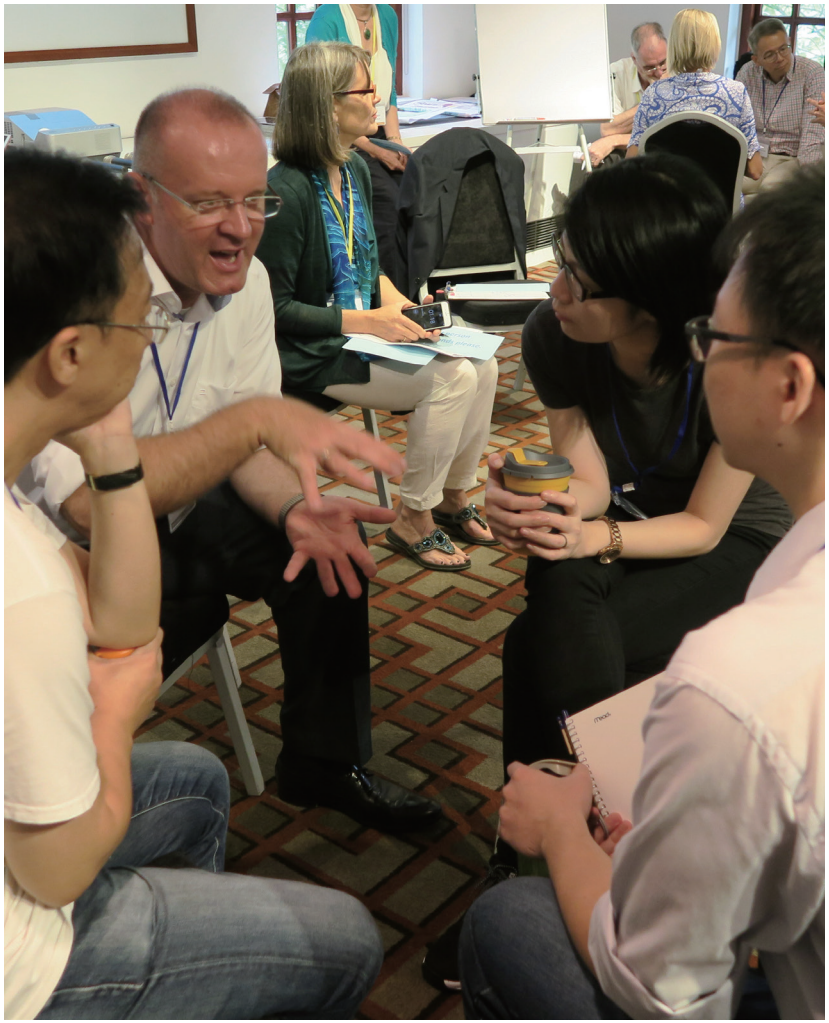
**visually impaired person**

Mr. Wong (pseudonym) is one of the vivid examples of climate injustice. Mr. Wong is a visually impaired person who lives alone in a tiny subdivided flat in Hong Kong. In summer, the indoor temperature is unbearable; the windows cannot be opened, and he hesitates to turn on the air conditioner, because he can barely afford it, and he also knows that it is not good for the climate. As a blind person he is very sensitive to his surroundings, and when the indoor air circulation is poor, he is very uncomfortable. Whenever it rains heavily, he is fearful about going to work. It is hard to distinguish the sound of the rain from that of cars on the road, and he stumbles over obstacles more often. Crossing the street is more dangerous with a cane in one hand and an umbrella in the other; it is often both embarrassing and risky.


1

# Talanoa Dialogue — The Beginning of Climate Community Dialogue

The Talanoa concept stems from a traditional problem–solving practice in South Pacific Island communities, and was promoted by the United Nations when Fiji was official host of the 2017 COP23 climate summit. Talanoa represents a participatory and transparent discussion process based on story–telling, designed to foster a non–accusatory and supportive way of addressing problems.[6]



# First Attempt in Hong Kong

The first Hong Kong Talanoa Dialogue, promoted by the United Nations for climate action, took place at the Asia Society Hong Kong Centre in Admiralty, on 14 September 2018. A group of 30 stakeholders from the welfare sector, business community and academic fields met for a day. Using the Talanoa guidelines and methods (the sharing of knowledge and experiences through an inclusive, participatory and transparent process), they discussed Hong Kong's ambitions for climate change action while referring to the principles of the Paris Agreement. Also, stories about the environment of the past, present and future, from near and far, were shared during the dialogue. The aim of the meeting was to explore ways to raise awareness and set higher goals for climate action in Hong Kong.

The day began with a brief introduction of the purpose of the Talanoa Dialogue. Then the participants gathered in a circle, closed their eyes, and shared a moment of silence to honour the beauty of the natural environment and consider how to support it through this challenging time. The meeting then focussed on three major questions proposed by the UNFCCC: Where are we now? Where do we want to go? How do we get there?

6 / https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement/2018-talanoa-dialogue-platform

1

## Where are we now?

In the first session, participants held discussions in groups of four. They shared their perspectives on progress in dealing with climate change, whether the Talanoa Dialogue fit the UNFCCC process, and how well Hong Kong was fulfilling its goals under the Paris Agreement.

2

## Where do we want to go?

The second session featured the organizers telling stories about successful experiences around the world, including environmental policies, initiatives and solutions that might be applicable to Hong Kong. The stories provided various approaches for participants to consider, and their anticipated results in preventing sustained climate change.

3

## How do we get there?

In the third session, participants continued the dialogue by proposing solid plans for maintaining a low carbon society. The activity required them to write their plans on a small piece of paper and place them on the drawing of a tree, which symbolized the hope that those effective solutions would bring positive consequences to the environment, like a fruitful tree.

> The participants expressed a common sense of urgency and commitment, along with a belief in the need to accelerate action, to make sure Hong Kong remains a healthy, safe, environmentally friendly and sustainable city for current and future generations.

# Conclusion

The dialogue affirmed the need for building trust and new forms of cooperation for action on climate change mitigation and adaptation. The meeting produced a series of feasible proposals to advance Hong Kong's progress toward becoming a carbon neutral city in the future.

A report from the meeting was compiled and approved by the participants. (Please refer to Annex 4.) It was then sent to the UNFCCC 2018 Talanoa Dialogue Platform as a contribution to its synthesis report. The report was also submitted to the parties under the Paris Agreement during their COP24 talks in December 2018. [7]The results of the meeting encouraged CarbonCare InnoLab to continue using the Talanoa Dialogue approach in exploring the impact of climate change on all sectors of society, especially the disadvantaged; in exploring the impacts of transition to a low carbon economy; and in finding ways for Hong Kong to implement a just transition.

7 / https://www.ccinnolab.org/uploads/media/Talanoa%20Submission%20by%20John%20Sayer%202018%20March.pdf


## 2 Preliminary Assessment: Hong Kong's status in achieving climate justice and advancing a just transition using the lens of the UN Sustainable Development Goals (SDGs)[8]

In 2015, the United Nations adopted the "2030 Agenda for Sustainable Development" (2030 Agenda) and the Sustainable Development Goals (SDGs), also known as the Global Goals, which aim to eradicate poverty and hunger, to protect the ecosystem, to end discrimination against women and girls, and to ensure peace and prosperity for all by 2030.


The 2030 Agenda states that "the SDGs are integrated and indivisible, balancing the three dimensions of sustainable development, namely economic, social and environmental sustainability." This implies that there are complex interlinkages among the SDGs. The implementation of SDGs may create synergies, but may also counteract each other. The 2030 Agenda is committed to improving the quality of governance, including inclusive and participatory decision–making, accountability and transparency. It also posits that sustainable development cannot leave anyone behind and requires the participation of all sectors of society.[9]

A just transition is highly consistent with the above three elements of the 2030 Agenda, including the economy, society and the environment, as well as addressing the interrelationship between the SDGs, the quality of climate governance, and the idea that "sustainable development must leave no one behind". Climate governance (under SDG16) plays a key role in synergising the realisation of the SDGs, and in the continuous exploration of a pathway towards a just transition.

The 17 Sustainable Development Goals (SDGs) and 169 targets of the 2030 Agenda emphasize that development must balance social, economic and environmental sustainability. They are all indispensable elements of sustainable development. We also believe that the SDGs are the only way to achieve climate justice and drive just transitions. Achieving these goals can result in a just, secure and sustainable future. Therefore, using the SDGs to measure progress toward a just transition provides important baseline data for Hong Kong to explore and build upon, as well as a basic framework for future development.

8 / This chapter is an adapted version of the briefing paper, "A Just Transition for Hong Kong — A Sustainable future for all in a climate vulnerable city," (by John Sayer, 2019). Accessed on 31 May 2022. https://www.ccinnolab.org/uploads/media/A%20Just%20Transition%20for%20Hong%20Kong.pdf

9 / Balasubramanian, P., Breuer, A., Leininger, J., Allen, C., & Kercher, J. (2022). Sustainable Development Goal (SDG) 16: A governance compass towards just transition? (Policy Brief 4/2022). Bonn: IDOS. https://doi.org/10.23661/ipb4.2022

# Findings

## SDG1 No Poverty


In Hong Kong, the lack of basic data from government departments and research institutions makes it impossible to judge the relationship between poverty and climate change quantitatively. However, we do know that nearly one out of every four citizens lives below the poverty line.[10] We have a problem with 'in-work poverty', where people with full-time jobs cannot earn a sufficient living wage. Research shows the in-work poverty rate in Hong Kong to be 13.6%.[11] Therefore, our climate adaptation actions, while promoting a just transition, must prioritise the problems of the poor, to ensure that their situation is not worsened due to climate disasters and due to climate change policies.

Providing better jobs and affordable and adequate housing are two key strategies for reducing poverty in the city. The transition to a green future offers opportunities in both jobs and housing if it is planned and managed well. SDG1 addresses the issue of social protections for all. Climate action must protect workers who transition from one job to another, and must provide decent pensions for those forced to retire early. SDG1 also covers protection from disasters, disaster risk reduction, and building of resilience for poor and vulnerable people, preventing them from falling into poverty due to climate disasters; all of which are key elements of climate adaptation.

## SDG3 Good Health and Well-being


Little research has been done on physical and mental health under the impacts of climate change in Hong Kong. The only available research literature states that the higher the temperature, the more mentally ill patients need to be hospitalized.[12] We need more research to gain an in-depth understanding, and continuous monitoring of climate impacts on health. We must also use data to formulate strategies that mitigate the health risks of climate change in order to protect the health rights of citizens.

SDG3 advocates that health care must be available to all, and people must be protected from the health risks related to climate change. Benefits of a low carbon society include cleaner air, a healthier living environment and better diets. Good medical treatment is also a measure of success. SDG3 explores reducing the incidence of neglected tropical diseases, and the cardiovascular disease related to heat levels and air pollution. It addresses indoor and outdoor air quality and health measures for people exposed to heat. It also addresses the negative psychological impacts of dislocation in a changing economy and the mental stress associated with longer periods of extreme heat.

10 / HK01, the number of people living in poverty is 1.653 million, a new high, and the poverty rate is 23.6%. About one out of four Hong Kong people are poor. 10 November 2021. Accessed on 31 May 2022. https://www.hk01.com/sns/article/698578
11 / Oxfam Hong Kong, Working Poverty and Labour Rights. Accessed on 31 May 2022. https://www.oxfam.org.hk/tc/what-we-do/development-programmes/hong-kong/workingpovertyandlabourrights
12 / Chan E.Y.Y., Lam H.C.Y., So S.H.W., Goggins W.B., Ho J.Y., Liu S, Chung P.P.W. Association between Ambient Temperatures and Mental Disorder Hospitalizations in a Subtropical City: A Time-Series Study of Hong Kong Special Administrative Region. International Journal of Environmental Research and Public Health. 2018; 15(4):754. https://doi.org/10.3390/ijerph15040754


## SDG5 Gender Equality

The current Climate Action Plan for Hong Kong does not appear to reflect a gender perspective. It should ensure fair representation of women on climate action decision–making bodies. It should also facilitate dialogue and engagement with women's groups as stakeholders in climate action in the city, to ensure that gender perspectives are fully incorporated into plans, and that particular risks and opportunities for women are taken into account during planning and implementation.

In terms of SDG5, there exists a wealth of information on the relationship between gender equality and climate action. As with all issues regarding social benefits and vulnerabilities, women and men are not identically affected. The Paris Agreement says that when taking action to address climate change, governments should respect, promote and consider gender equality and the empowerment of women. There will be no just transition with regard to employment, livelihoods and well–being if widely recognised gender disparities are not addressed by both environmental and labour policies.


## SDG7 Affordable Energy for All

Although the current Hong Kong Climate Action Plan 2050 has established mid–term and long–term renewable energy and zero–carbon energy targets, our Paris Watch Hong Kong Climate Action Report pointed out that these clean energy targets are still unambitious and fail to meet the expectations of the Paris Agreement, which requires that global temperature rise be limited to 1.5 degrees Celsius. It also fails to guarantee access to clean energy in the face of the growing climate crisis. The government has a chance to achieve this goal only if it increases its plans to develop renewable energy.

SDG7 concerns ways to ensure that energy remains affordable for all. If subsidies are eliminated for wasteful and polluting fossil fuels, including those for public healthcare and clean–up costs incurred by the resulting emissions, those funds should be redirected to protect the most vulnerable from substantial increases in energy prices. A highly progressive form of energy pricing or taxation of energy consumption should ensure that everyone can meet their basic energy needs, while those who choose to use more energy than average pay a higher price for their excess use. There are places, however, where decentralized or off–grid energy supplies may make sense, at least as a backup.

# Findings


## SDG8 Decent Work and Economic Growth

Hong Kong has implemented a minimum wage policy and has some basic protections for workers. For example, the Labour Department has set rules on the "Prevention of Heat Stroke at Work in a Hot Environment," and conducted related risk assessments. However, there is much room for improvement in safeguarding workers from the impacts of climate change and related economic transformation, especially in securing decent and high-quality jobs.

Decent work lies at the heart of the concept of a just transition in terms of SDG8. This goes beyond wage level alone to ensuring quality jobs, employment planning, training and skills development, as well as social protections. While ensuring the provision of essential goods and services for all, including those who presently struggle to meet their basic needs, growth may incorporate aspects of a circular economy and more asset-sharing systems. The adoption of new technologies and infrastructure, with resulting increases in productivity, can enable shorter working hours, combined with better distribution of available work, rather than job losses for some and long hours for others. Giving voice to workers as stakeholders in climate change action is an essential part of a just transition. Compliance with ILO standards of freedom of association and collective bargaining is a prerequisite for workers to have a realistic voice in broader issues such as climate change strategies. SDG8 makes clear that more efficient resource consumption is part of the formula for economic growth, including seeking ways to de-link growth from resource consumption and greenhouse gas emissions.


## SDG10 Reduced inequality

In Hong Kong, attention should be paid to the impacts of climate and climate action on our vulnerable communities. Climate mitigation and adaptation plans should take account of groups which have limited rights and social facilities. Overall, the poverty rate in Hong Kong is 23.6%; that is, one out of every four residents lives below the poverty line. Promoting a just transition towards a low carbon economy in a society with a huge disparity between the rich and the poor, while advancing equality at the same time, is extremely challenging for Hong Kong.

A just transition means ensuring that segments of society don't lose their livelihood, their standard of living, or their standing in society due to the shift to a low carbon economy. SDG10 also points out that mobility is an element of equality.

13 / 樂施會，香港貧窮現況與政策回應，訪問日期為 2022 年 5 月 31 日。 https://www.oxfam.org.hk/tc/what-we-do/development-programmes/hong-kong/povertyinhongkongandoxfamsadvocacywork


## SDG11
## Sustainable Cities and Communities

Hong Kong, with a plan to achieve carbon neutrality by 2050, will be well on the way to becoming a safe, resilient and sustainable city. However, regarding the issues of adequate housing, transportation and other requirements, there is a lot of room for improvement. Recently there have been complaints of a lack of transparency in the selection and composition of members of 'consultative' bodies and stakeholder groups related to housing and land policy. To achieve this in a just manner, the process will have to embrace the SDG call for inclusivity.

SDG11 calls for a "direct participation structure of civil society in urban planning and management that operate[s] regularly and democratically." This relates directly to a just transition for climate change mitigation and especially adaptation. It also calls for "access for all to adequate, safe and affordable housing." For housing to be adequate and safe, it must protect residents against climate-related weather extremes. Research is needed on average housing conditions here, especially related to indoor ventilation and temperature. Statistics on minimum space per individual in housing would also be relevant. SDG11 also concerns adequate, safe and affordable public transport systems. Access to and utilization levels of public transport are valuable indicators of sustainable cities and comprehensive climate action. In addition to housing and transport, SDG11 touches on other components of an inclusive, safe, resilient and sustainable city that can all be linked to effective climate action, including disaster risk reduction planning and resilience plans, with a focus on protecting the poor and people in vulnerable situations, management of mean levels of particulate matter in the atmosphere, and the provision of safe, inclusive and accessible green and public spaces.


## SDG13 Climate Action

Hong Kong's climate change action plan should explicitly work towards the achievement of this SDG. It covers the transition to a low carbon economy, along with adaptation to the effects of climate change.

SDG13 emphasises mitigation, adaptation and resilience to protect lives, education on climate change, and the provision of climate finance. Indicators include estimates of deaths attributable to disasters, as well as the effectiveness of disaster risk reduction strategies. Such indicators suggest the relative vulnerability of different occupational and income groups.

# Findings


## SDG16 Peace, Justice and Strong Institutions

The Hong Kong SAR government has established a Steering Committee on Climate Change and Carbon Neutrality, headed by the Chief Executive. It has committed in its Climate Action Plan to establishing a Climate Change and Carbon Neutrality Office to coordinate the work set out in the plan, and to setting up a dedicated advisory committee to collect views from stakeholders. It also has committed to promoting green finance. Financial institutions can play a major role in financing progress towards a low carbon economy. However, greater capacity and understanding are required in the assessment and management of green finance. More evenly distributed gains from a greening of Hong Kong's finance sector would contribute to a just transition. Also, the potential for Hong Kong to play a role in green finance extends beyond the territory's borders.

No just transition will occur without effective institutions, in which the public has sufficient trust, that can ensure impartial implementation of policies. SDG16 notes that one key to building trusted institutions is to "ensure responsive, representative decision-making at all levels." SDG16 targets the quality of public services, human rights, and transparency in government. These are all issues highlighted in the Paris Agreement.


## SDG17 Partnerships for the Goals

Hong Kong's Climate Action Plan is the result of inter-departmental coordination within the government. It is a positive step, but there can be no green transition in Hong Kong without the involvement of business, the finance sector, community groups, international NGOs, and local representatives, as well as the SAR government. This collective and synergistic effort naturally requires a range of avenues for stakeholder engagement to ensure that groups with different perspectives join together to work out the most effective strategies for cooperation towards the common goal of climate action.

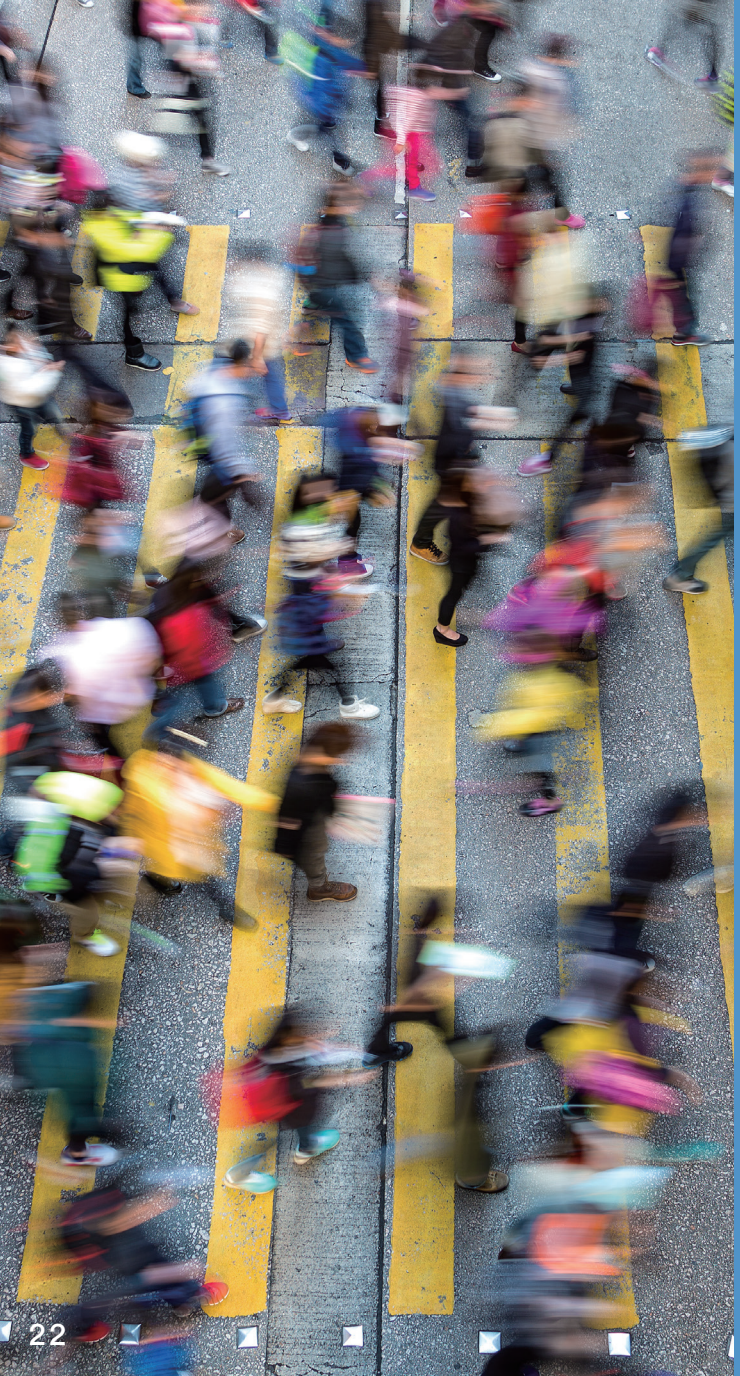
This seldom happens spontaneously. Governments, whether local or national, have an essential role in using their influence to bring different parties to the table, setting agendas, reducing risks and in many other ways fostering partnerships for the long-term common good. Business asks government for stable, fair, transparent and predictable policies, even where these require business to change.

In terms of SDG17, a just transition, and climate action more generally, should not be a minority interest shunted into a single government department. The ILO notes the need to "integrate provisions for a just transition into the agendas of line ministries, rather than assigning them to only one ministry." SDG17 sees effective taxation as a precursor to domestic resource mobilization for sustainable development. Support for the "development, transfer, dissemination and diffusion of environmentally sound technologies" is another element of partnership, along with capacity building. Finance, technology and capacity building all form major sections of the implementation plan for the achievement of the Paris Agreement. The final element of Agenda 2030 concerns data, monitoring and accountability. Climate action plans under the Paris Agreement also call for transparent and accountable monitoring, reporting and verification. Knowing what to measure and measuring what we know apply to both environmental and social action.

> We believe the vast majority of politicians, officials and business leaders in Hong Kong would support just transition.

# Conclusion

However, Hong Kong still has to face many challenges in the pursuit of a just transition, including the lack of awareness and vision concerning climate justice; the lack of baseline data, especially the relationship between various social policies and climate change; and the lack of an effective cooperation mechanism across different sectors. We must ensure that the provision of adequate goods and services in a rapidly decarbonising society will at the same time spur progress towards the key goal of a just transition: the maintenance and growth of decent work and quality jobs. We all accept that a green transition requires massive mobilisation of resources, investment in infrastructure and the re-design of our economic systems. Based on the above analysis, we believe it is imperative to engage in community dialogue with different stakeholders and organisations to understand and outline the pathway toward a just transition.



# 3 Realising a Just Transition in All Walks of Life

# Section 1 : **Subdivided flat residents**

## Background

The issue of sub-standard flats in Hong Kong has been recognised as an important social challenge for years. From rooftop houses, cage homes, and cubicles to subdivided flats, the living environment for a significant proportion of Hong Kong's people is crowded and harsh. Currently, about 220,000 people are living in 110,000 sub-divided flats. [14]The weather in Hong Kong is humid and hot for more than half the year. This is now coupled with the threat of increasingly serious climate impacts and the recent global outbreak of coronavirus, exacerbating the existing housing problems. The situation of residents in sub-divided flats, who are disproportionately vulnerable to extreme weather and coronavirus, has drawn increasing attention from the community.

## Methodology

A community dialogue was held on 11 September 2020 with a focus on residents of subdivided flats. Representatives from housing groups, social service centres, environmental organizations, scholars and others met to conduct a ground-breaking cross-sectoral exchange on the challenges arising from climate change. The dialogue addressed three major questions: first, the impact of Covid-19 on subdivided flat households; second, the definition of the right to adequate housing and analyses of the impact of climate change on subdivided flat residents; and third, the current situation of subdivided flat residents, existing policies and arrangements concerning them, and ways to effectively improve their living environment.

Illustration: Carmen Lau

14 / "Report of the Task Force for the Study on Tenancy Control of Subdivided Units (March 2021)," Secretariat for the Task Force for the Study on Tenancy Control of Subdivided Units Transport and Housing Bureau. https://www.thb.gov.hk/eng/contact/housing/studyOnTenancyControl_Report.pdf (Accessed on 17 August 2021)


## Analysis

The United Nations' International Covenant on Economic, Social and Cultural Rights recognizes "the right of everyone to an adequate standard of living for himself and his family, including adequate food, clothing, housing and to the continuous improvement of living conditions."[15] (Article 11, Paragraph 1) The UN has put forward seven standards related to the right to adequate housing, including: security of tenure; availability of services; **materials**; **facilities and infrastructure**; **affordability**; **habitability**; **accessibility**; **location**; and **cultural adequacy**.[16]

15 / "International Covenant on Economic, Social and Cultural Rights", United Nations Treaty Collection. https://treaties.un.org/doc/Treaties/1976/01/19760103%2009-57%20PM/Ch_IV_03.pdf. Accessed on 17 August 2021.
16 / "The Right to Adequate Housing," Fact Sheet No. 21/Rev. 1, United Nations, p. 3. https://www.ohchr.org/documents/publications/fs21_rev_1_housing_en.pdf. Accessed on 17 August 2021.

The Hong Kong SAR follows the People's Republic of China as a party to the United Nations Convention. It also stipulates in accordance with Article 39(1) of the Basic Law of the SAR that the relevant provisions of the Convention applicable to Hong Kong "continue to be effective and shall be implemented through the laws of the Hong Kong SAR." The SAR government therefore has responsibility and an obligation to fulfil relevant requirements in the spirit and letter of the Convention with regard to decent housing conditions.

However, Hong Kong's sub-divided flats are generally poorly ventilated, with poor drainage and waste water systems, all of which increase the risk of infection from a range of sources, including the Covid-19 virus. At the time of the pandemic, residents confined to tiny sub-divided flats have faced increased mental stress and negative emotions, including symptoms such as anxiety, depression, emotional distress, loss of appetite, and even insomnia. Many sub-divided flat residents are reluctant to turn on air-conditioning because they cannot afford the high electricity bills. Many residents have health problems related to high temperatures, including cases of indoor heatstroke. Where the government has provided electricity subsidies to households, these are usually in the hands of the property owners, and the landlords have no incentive to pass on these lower electricity costs to the tenants in subdivided units. A number of NGOs, including the Society of Community Organizations (SOCO) and Caritas Community Development Services, have released survey results on the quality of life of subdivided flat residents in the past two years, which also echoed the above problems. [17]The dual impacts of climate change and coronavirus on residents of subdivided flats are already sufficient to show that the inequality of housing in Hong Kong has serious consequences.

17 / Sun, F., "Hong Kong's subdivided flats: depression, cockroaches, rats and shame add up to misery for people in subdivided flats," South China Morning Post, 28 September 2022. https://www.scmp.com/news/hong-kong/society/article/3193253/hong-kongs-subdivided-flats-depression-cockroaches-rats-and

# Recommendations

To meet the requirements for the right to adequate housing, we agreed that per capita living area needs to be at least 50 square feet, and bed space should be adequate for a person to lie flat with straight legs. Sufficient storage space, dining space, activity space and sleeping space, and an independent kitchen and toilet, were also seen as minimum basic needs. In addition, the residence should provide a certain degree of privacy and private space. Accommodations should be equipped with sound insulation, good ventilation, sufficient light sources, and other facilities to ensure a safe, hygienic environment.

In order to meet the goal of adequate housing for all, the use of innovative technology, cross–sectoral cooperation, and innovative improvements in regulations were deemed worth exploring, in addition to establishing the minimum standards listed above. The following specific initiatives and solutions have been proposed and are being promoted by local groups:

1

### Prioritise addressing energy poverty :

Currently, sub-divided households suffer from high electricity bills because they do not have independent electric meters, and therefore cannot benefit from the Electricity Charges Subsidy Scheme. Independent meters would make the subsidy scheme more effective. Installation of smart meters for sub-divided households would provide incentives for using more energy-efficient appliances and other energy-saving behaviour.

2

### Advocate the review and revision of relevant laws :

The government should resolve the problem of homeowners overcharging tenants on electricity bills through legislation, and strengthen inspections and prosecution of illegal practices by homeowners. The government should also consider adding requirements to adapt to climate change and protect the basic living conditions of tenants to regulations such as structural safety in buildings and tenancy control.

3

### Repurpose unused spaces :

such as rooftops or unoccupied hotels as transitional residential housing.

4

### Learn from the experience of other countries :

Consider co-accommodation models used in other countries, with shared common space to alleviate the problem of small private living spaces.

5

### Reflections from the COVID-19 pandemic :

Consider outcomes from the coronavirus pandemic, with increased opportunities for employees to work from home, and the resulting reduced demand for commercial office space. Explore the potential for planning more low-cost residential housing development.

6

### Foster cross-sectoral civil society action and better use of community resources :

Non-profit organizations can promote cross-sectoral partnerships and collective action to help residents of sub-divided flats cope with climate change, and to increase social dialogue and cohesion. Examples include community-level waste collection and recycling stations, whereby social workers, environmental organisations and the recycling industry collaborate to benefit the community.

## Conclusion

All in all, the government, academics, and civil society can play a part in improving the environment of subdivided flats and helping their residents cope with climate change and participate in actions to mitigate climate change. The government should revise its policies to improve the structure of buildings. It should also make better use of public space and land, reduce energy poverty in partnership with power companies, and support technical research to improve environmental hygiene and heat control. Civil society can facilitate cross-sectoral cooperation to mobilise and make good use of diverse resources and promote community-level discussions to identify and solve problems. Only with concerted efforts by people from all walks of life can residents of subdivided flats be expected to cope with the impacts of climate change.

# Section 2 : Outdoor workers

## Background

Outdoor workers generally include cleaning workers, waste collectors, construction workers, security guards and other people who need to work outdoors. They are intensely affected by extreme weather events due to the nature of their jobs, especially extreme heat, heavy rain and typhoons. This has attracted widespread public attention.

## Methodology

The community dialogue included 22 participants from sectors that require outdoor work, such as cleaning, waste collection and security, along with members of trade unions, concern groups and environmental NGOs, on 8 December 2021. The dialogue addressed four major questions: First, the impact of climate change on outdoor workers; Second, policies and measures that affect outdoor workers; Third, opportunities brought about by the impacts of climate change; and Fourth, future actions that could be taken together.

**Ms. Cheung** (pseudonym)

**Street cleaner**

Ms. Cheung (pseudonym) is a street cleaner in an urban area. In recent years, her work has become more difficult in the hot days of summer, and soon after starting work, her clothes are all wet. She works ten hours a day, often has to bring her own small fan, and drinks at least two litres of water every day to cope with the heat. Even if her employer provides a water dispenser and a fan, they are often located far from her work place. Recently, she has been experiencing heatstroke symptoms, including sudden profuse sweating, a racing heartbeat and blurred vision. Several of her co-workers have similar problems. However, the foreman has offered no assistance. Ms. Cheung can only take a rest under the shade of a tree, as her employer has failed to provide other protective measures.

# Analysis

A growing body of research around the world confirms the impact of climate change on outdoor workers, especially on their health and productivity. A study published in the journal Nature Climate Change noted that at least 100,000 people die each year from extreme heat. Last year's Lancet Countdown to Health and Humanity report estimated 295 billion potential work hours lost due to high heat in 2020. A U.S. study also estimated that heatwaves cost about $2.1 trillion in lost productivity. The negative impact on workers in agriculture and construction is often underestimated.[18] Meanwhile, multiple studies[19] have confirmed that outdoor workers' long-term exposure to high temperatures poses risks to their health, which is already a great challenge facing the world.

Currently, outdoor work in extreme weather is classified as an issue of occupational safety and health in Hong Kong. The government does not have legally binding regulations on outdoor work beyond basic protections for work-related injuries, in accordance with the Employees' Compensation Ordinance. However, that ordinance neither prevents employees from being injured at work in extreme weather, nor does it clearly define the scope of protections for work-related injuries, such as heat stroke. Employers and employees can only rely on the alert system of the Hong Kong Observatory in the event of extreme weather events such as typhoons, heavy rains, thunderstorms and extreme heat, and the guidelines for work safety under severe and hot weather,[20] to make suitable work arrangements.

In this case, many outdoor workers, including those engaged in cleaning and waste collection, construction, security and other industries, have relatively weak bargaining power in ensuring their own safety at work. Many workers were not aware of the work safety guidelines issued by the SAR government, perhaps due to the lack of publicity by the government, and the lack of risk awareness among employers and foremen. The work safety guidelines have not prompted dialogue between employers and employees on safety issues, making them practically ineffective.

In other words, current practices fail to motivate outdoor work sectors to formulate policies and regulations, and improve the work environment and processes in response to extreme weather. The lack of regulations on outdoor work not only exposes workers to the risks of extreme weather, it also raises issues concerning equipment, the environment and work procedures. It exacerbates long-standing tense relations between labourers and employers, which are based on issues like excessive working hours, the exploitation of outsourced workers, etc.
Under such circumstances, some middle and low-level employees have adopted self-protection measures. For example, in hot weather, some conscientious employers or foremen provide equipment to improve the ventilation and flexibility of the workplace. During working hours, some workers bring their own ventilated clothing and refreshing drinks, and rest in the shade or set up tents for temporary relief from the heat.

Legislation to regulate outdoor work is the only way to alleviate the impacts of extreme weather. We sought to incorporate extreme weather into regulations concerning outdoor work, with the aim of safeguarding worker health.

In 2022, Hong Kong experienced its longest heat wave in July, including 21 extremely hot days (i.e. daytime temperature of 33° C or above) and 25 hot nights (i.e. night-time minimum temperature of 28° C or above), of which 21 nights were consecutive. The hot nights broke the record of the Hong Kong Observatory. Many NGOs highlighted the plight of cleaning workers, which was widely reported in the media.[21] At the same time, these organizations put forward policy recommendations, which will also be mentioned in this article.

18 / MacNamra, K., Climate change worsening toll of humid heat on outdoor workers: study, Phys.org, 13 January 2022. https://phys.org/news/2022-01-climate-worsening-toll-humid-outdoor.html
19 / Moda HM, Filho WL, Minhas A. Impacts of Climate Change on Outdoor Workers and Their Safety: Some Research Priorities. International Journal of Environmental Research and Public Health. 2019; 16(18):3458. https://doi.org/10.3390/ijerph16183458
20 / Hong Kong SAR Civil Service Bureau, "Inclement and Hot Weather," 23 September 2021. https://www.csb.gov.hk/tc_chi/oshcs/topics/inclement-and-hot-weather.html.
21 / "酷熱天氣｜戶外清潔工日飲 5 公升水仍中暑工會促設有水電休息室," 香港 01, 2022 年 7 月 25 日。https://www.hk01.com/article/796331; "地盤工中暑不治「內臟仿被焗熟」 僱主拒認工傷司法追訴 4 年無果," 香港 01, 2022 年 8 月 13 日。https://www.hk01.com/article/803551; "調查指逾六成半清潔工酷熱下工作感不適 倡提供高溫津貼," AM730, 2022 年 8 月 29 日。https://www.am730.com.hk/ 本地 / 調查指逾六成半清潔工酷熱下工作感不適 – 倡提供高溫津貼 /335856; "逾五成受訪街道清潔工有熱疾病症狀 – 環團勞團促保障戶外工作安全," 香港 01, 2022 年 9 月 14 日。https://www.hk01.com/article/814646

# Recommendations

Local NGOs have long advocated for government legislation to regulate businesses and encourage employers to adopt the following climate adaptation measures for their employees:

## Short term policy recommendations：

1 Provision of **drinking water**

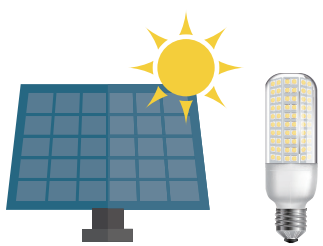
2 **Spaces** for taking breaks, changing clothes and eating

3 Hot weather **work allowances**

4 **Specific rest periods** when working in high temperatures

5 Improved processes for bids and tenders for **outsourcing outdoor projects**, with contractors required to list their **work safety protections** for outdoor workers in extreme weather;

6 Waste collection and recycling facilities equipped with solar panels, energy–saving ventilation equipment and light–emitting diode (LED) bulbs or light tubes



## Long-term policy recommendations

1 Reference should be made to the **hot weather outdoor work arrangements** in neighbouring countries or regions. For example, Guangdong Province, which borders Hong Kong, has long implemented labour protection measures in hot weather: When the maximum temperature reaches 39 degrees Celsius or above, employers in the province must stop outdoor work.

2 We can make reference to other Asian countries, such as Japan[22] and South Korea, which have also adopted non-mandatory measures. They **adopt the systematic wet-bulb globe temperature (WBGT[23]) to assess the risk of heat stroke** under high temperatures, then propose appropriate measures for work environments, processes and workers' health, and guide employers and workers to deal with extreme weather. This system is widely used in many prefectures/provinces and cities in Japan and South Korea, including construction sites and schools, and is welcomed by local residents.

3 Another approach worth considering is an **alert system for outdoor air pollution**. The Air Quality Health Index published by the Environmental Protection Department of Hong Kong SAR is a key indicator to assess the health risks of air pollution for outdoor workers. However, the extremely hot weather warning issued by the Hong Kong Observatory fails to provide the same impact.

22 /"職場における熱中症予防情報 ,"厚生労働省（日本）, 2022. https://neccyusho.mhlw.go.jp/
23 / National Oceanic and Atmospheric Administration, "Wet Bulb Globe Temperature," https://www.weather.gov/car/WBGT

## Conclusion

We should ensure that outdoor workers are protected by adequate responses to extreme weather. Legislation is the most direct and effective approach, which can also trigger support measures, such as improving equipment for workers and the work procedures of the relevant sectors, clarifying the scope of work-related injury protections, and enhancing relevant training and benefits. Enacting laws and improving workplace guidelines are recommended steps in dealing with extreme weather.

# Section 3 : Persons with disabilities

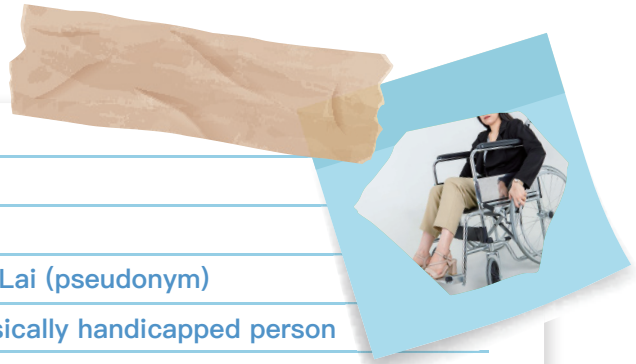
## Background

During extreme weather events, society has largely ignored the plight and hardships of people with disabilities, who often suffer greater distress than ordinary people. In the face of unexpected extreme weather, they are prone to withdraw, not wanting to bother others. In high heat, they may seek an air-conditioned place, or take a shower. A hearing-impaired person pointed out that he could not grasp the weather situation, including traffic conditions, because he could not hear broadcasts. People with physical disabilities also complained about the embarrassment of trying to cross a road in a flash flood or rainstorm, and the unexpected risks that may arise.

Another situation that can cause trouble for people with disabilities is encountering sudden inclement weather on their way to work, which can make them late or absent. Employers often fail to recognise their difficulties. For example, people who use electric wheelchairs face challenges, including possible damage to their wheelchairs, during rainstorms.

## Methodology

A community dialogue was held with 10 participants from concern groups of people with disabilities on 17 February 2022. The dialogue addressed three major questions: First, the impacts of climate change on the disabled; Second, current government policies and measures, and the capability of persons with disabilities to cope with climate change; and Third, the needs of the disabled in disaster risk reduction.



**Ms. Lai (pseudonym)**

**physically handicapped person**

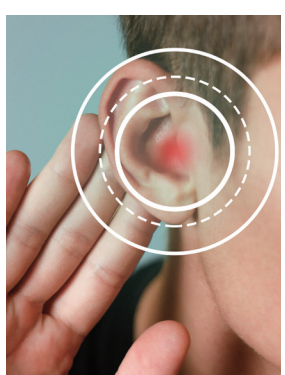
Ms. Lai (pseudonym) is a physically handicapped person. She feels unsafe when a typhoon is approaching and when it rains heavily. She goes to work in a wheelchair, which makes it difficult for her to use an umbrella. She also fears she cannot escape quickly if an object falls on the road. The risk of being stuck on the road is also greater, as she cannot board a taxi. The more frequent and strong the typhoons, the more severe the rainstorms, the greater the danger Ms. Lai has to face

# Analysis

Extreme weather such as heat waves, air pollution, floods, storms and wildfires threaten the health of people with disabilities. Studies have shown that due to a lack of disability-inclusive planning, accessible information, early warning systems and transportation, as well as discrimination, the death rate of people with disabilities in climate disasters is four times higher than that of people without disabilities. Heatwaves can also negatively impact the health of people with disabilities, [24]especially those associated with thermoregulation, and those with multiple sclerosis and spinal cord injuries. [25]

The United Nations Convention on the Rights of Persons with Disabilities provides a guiding framework for climate actions related to persons with disabilities, including establishing climate change response measures that take their needs into account. The Sendai Framework for Disaster Risk Reduction (2015-2030), which is endorsed by the United Nations Office for Disaster Risk Reduction (UNDRR), also proposes to incorporate their needs into all policies and implementation modalities for accessible disaster prevention and mitigation strategies. The editor attended this year's UNDRR Asia-Pacific Ministerial Conference. Persons with disabilities have become one of the key constituencies, together with governments, businesses, women, youth, etc. In addition, the Office of the United Nations High Commissioner for Human Rights proposed a series of key principles for addressing climate change that take into account the human rights of persons with disabilities. These frameworks serve as the basis for better protection of people with disabilities impacted by climate change and disasters.

Although the United Nations provides these legal frameworks and guiding principles, there is little action in Hong Kong. There is a lack of specific supporting measures and solutions for local implementation. The government and the business community have generally ignored the vital needs of persons with disabilities. Under climate change, storms and extreme heat are becoming more frequent, which impacts those with disabilities more than the average person. Many face poor economic conditions, lack sufficient social protections, and are prone to suffer difficulties in the event of unexpected extreme weather.



While persons with disabilities need support from the government and society in adapting to climate change, they are not only passive players, but can also be active in mitigating climate change. They have a certain level of concern for environmental protection; for example, some have tried to reduce their use of air conditioning because it consumes energy, and they are aware of the importance of recycling to reduce waste and greenhouse gas emissions. A visually impaired person described his difficulty with recycling, as he could not distinguish the colours of the recycling bins. He would appreciate having Braille identifiers on recycling bins.

Unfortunately, at the policy level, in the Hong Kong SAR government's responses to climate change — from the "Hong Kong Climate Action Plan 2050" released last year to the recently announced "Budget 2022-23" allocation to improve the resilience of low-lying areas — the needs of the disabled are absent.

24 / zutsu, T., "Disability-inclusive disaster risk reduction and humanitarian action: an urgent global imperative," United Nations World Conference on Disaster Risk Reduction and the Progress Thereafter," 19 November 2019. https://www.un.org/development/desa/disabilities/wp-content/uploads/sites/15/2020/03/Final-Disability-inclusive-disaster.pdf

25 / Ebi KL, Capon A, Berry P, et al., "Hot weather and heat extremes: health risks." Lancet. 2021; 398: 698-708. https://doi.org/10.1016/S0140-6736(21)01208-3

# Recommendations

The groups of persons with disabilities have presented initiatives to the government and the business sector and promoted solutions as follows:

1 Regarding the policy framework, the government should refer to the Sendai Framework for Disaster Risk Reduction and the guiding principles issued by the Office of the United Nations High Commissioner for Human Rights, which address the needs of persons with disabilities with regard to climate adaptation, disaster preparedness, relief and recovery.

2 The Commissioner for Rehabilitation of the Labour and Welfare Bureau, who is in charge of policies related to persons with disabilities, should include them in the formulation of climate change policies and measures.

3 Various government departments should cater for the needs of persons with disabilities in terms of disaster preparedness:

1. The Labour Department and the Fire Services Department are responsible for educating and supporting employers and disabled employees on how to cope with climate disasters. This includes providing them with disaster preparedness training and related guidance, distributing information in a timely manner, explaining how they can receive disaster alerts and use tools for emergency assistance, etc. Disaster drills should take into account the needs of the disabled, and the government should educate the public not only to ensure their own safety, but also to help the disabled evacuate safely.

2. For the Fire Regulations, the hearing–impaired would like to see flashing lights installed in their homes or workplaces, to guide them to escape routes. Those who use wheelchairs pointed out the need for accessible escape routes and shelters in the event of emergencies.

3. The Hospital Authority can also set up sign language interpreters in hospital emergency rooms, and train staff to assist the hearing impaired.

4. For the visually impaired, it was suggested that the government could use information technology to design Braille maps on paper and on mobile phones, supplemented by voice navigation to guide evacuation. Braille identifiers should be added on recycling bins so that the visually impaired can engage in recycling activities, by distinguishing the colours of the recycling bins

5. Those who do not have smartphones would like to receive timely alerts of extreme weather through SMS on their lower grade mobile phones, especially during heavy rain, landslides and floods. Subsidising smartphones for those with financial difficulties is also an option that should be considered.

4 More listed and private companies are focusing on environmental, social and governance information disclosure, and it is hoped that companies will strengthen the links between their environmental and social components. This should include paying attention to the difficulties their disabled employees may face in extreme weather, and improving operating guidelines and work arrangements to accommodate their needs.

5 The NGOs are also aware of the severity of climate change; several made plans to hold training activities and seminars within their own organizations. They also determined to conduct public education to make citizens aware of climate change impacts on persons with disabilities.

## Conclusion

There is much room for improvement in how the government and society support people with disabilities in addressing climate change. As extreme weather becomes more frequent, the government and business sector should strengthen policies and practices to assist persons with disabilities in reducing climate risks, and their contributions in mitigating climate change should not be overlooked.

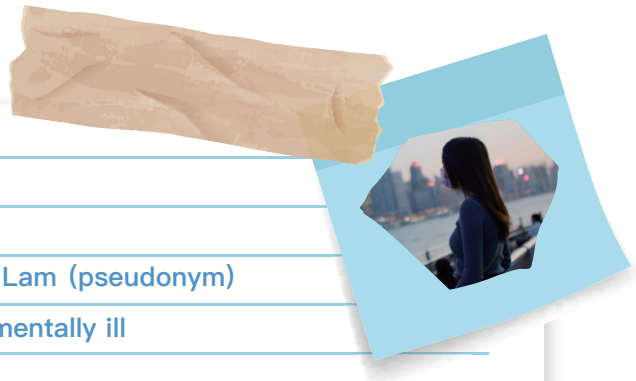
# Section 4 : Persons with mental illness

## Background

Climate change can easily induce mental health problems; this is supported by scientific data. The Sixth Assessment Report (AR6) of Working Group 2 (WG2), published by the Intergovernmental Panel on Climate Change (IPCC) on 28 February, cited the research findings [26]of Professor Emily Chan Ying-yang and her team from the Jockey Club School of Public Health and Primary Care, Faculty of Medicine, highlighting the impacts of climate change on mental health. However, Hong Kong society generally lacks understanding of this relationship. At the same time, people with mental illness lack simple and easy-to-understand guidance in their daily lives, and lack relevant technology to receive information on climate disasters, leaving them without proper support. This community dialogue explored related issues.

## Methodology

A community dialogue was held with 14 participants from groups of community service and healthcare workers, on 12 April 2022. The dialogue addressed three key questions: First, the threats to mental health from climate change or extreme weather; Second, current services, measures, resources and policies related to mental health; and Third, options for responding to climate disasters.



**Ms. Lam (pseudonym)**

**ex-mentally ill**

Ms. Lam (pseudonym) previously suffered from mental illness, and is supporting the rehabilitation process of mentally ill patients. She didn't know much about the impacts of climate change before our meeting, nor did she know how it would affect her life. However, in recent years, she has noticed an increase in the need for hospitalization of mentally ill patients, but front-line doctors have failed to give her an explanation.

26 / Chan EYY, Lam HCY, So SHW, Goggins WB, Ho JY, Liu S, Chung PPW. "Association between Ambient Temperatures and Mental Disorder Hospitalizations in a Subtropical City: A Time-Series Study of Hong Kong Special Administrative Region." International Journal of Environmental Research and Public Health. 2018; 15(4):754. https://doi.org/10.3390/ijerph15040754

# Analysis

The IPCC report notes that increasing climate disasters pose greater risks to mental health, including distress, anxiety, depression and grief, and can even lead to suicidal behaviour. Climate disasters also disrupt access to health care. People with mental illness are twice as likely to die during a heatwave as the rest of the population. [27]The World Health Organization (WHO) urges countries to develop policies to provide mental health support services in response to the climate crisis.[28] However, a WHO survey in 2021[29] found that only nine out of 95 countries have so far included mental health support services in their national health and climate change plans. WHO officials also indicated that nearly 1 billion people worldwide suffer from mental illness, but in low– and middle–income countries, 3 out of 4 people do not have access to the necessary services. Countries can do more, especially by reducing climate disaster risks and strengthening mental health and support services to protect those most at risk.

As for Hong Kong, research by Professor Chan and her team found that the higher the temperature in Hong Kong, the more people with mental illness needed to be hospitalized. They also found that both frontline medical personnel and community workers lacked awareness of the impacts of climate change on mental health. Frontline doctors generally did not consider extreme weather as a key factor in formulating their diagnoses. Community workers at the meeting also reported that they lacked relevant research data, and were unable to recognize the relationship between extreme weather and mental illness, in order to provide appropriate support. Professor Chan shared three points from her own experience: There is an urgent need for greater awareness of this issue; scientific research must be combined with action; and reference should be made to foreign practices including community–based mutual aid.

Current government support services, including emergency psychological and emotional support, as well as community centres and the business sector, did not reflect adequate understanding of mental health, let alone the impacts of extreme weather. While we hope to see more in–depth studies of climate change impacts on mental health, we also propose ways for persons with mental illness to cope with climate change.

The local groups support people with mental illness by providing mental health first aid courses, online and in–person counselling, and personal assistance, such as instruction in the use of mobile phones. One of the biggest challenges for people with mental illness is the digital divide. Even if they receive government funding to buy a smartphone, some are afraid to use it, and others find it too complicated. Therefore, they cannot receive extreme weather alerts and related information in a timely manner.
In addition, like other vulnerable groups, many of the people with mental illness are also elderly, and/or are subdivided flat residents. They often lack awareness of how to seek help, and fail to access necessary supplies and resources. This can have serious consequences in times of extreme weather or disasters related to climate change.

27 / Bouchama A, Dehbi M, Mohamed G, Matthies F, Shoukri M, Menne B. "Prognostic factors in heat wave related deaths: a meta–analysis." Arch Intern Med. 2007 Nov 12;167(20):2170–6. doi: 10.1001/archinte.167.20.ira70009. Epub 2007 Aug 13. PMID: 17698676.
28 /"Why mental health is a priority for action on climate change," World Health Organization (WHO), 3 June 2022. https://www.who.int/news/item/03–06–2022–why–mental–health–is–a–priority–for–action–on–climate–change
29 /"2021 WHO Health and Climate Change Survey Report," WHO, 8 November 2021. https://www.who.int/publications/i/item/9789240038509

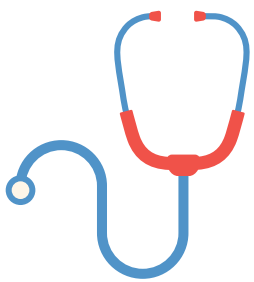
# Recommendations

Concern groups have been putting forward recommendations and solutions to the government and the business community as follows:

1

**District-level support networks** could be organized to focus on emergency response plans in extreme weather, the training of relevant service providers could be strengthened.

2

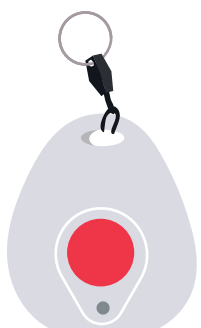


**Support from mental health professionals** including emergency mental and emotional support, and an increased understanding of mental health in community centres and business sector,can be increased to meet the urgent need.

3

**Climate actions** should be integrated with mental health support services.

4



Resources should be secured to **tailor-make services like the Care-on-Call Service**[30] for persons with mental illness.

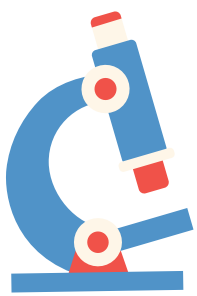
5

There are some **mental health-focused social service platforms** that can be leveraged to enhance public awareness of climate change and its impacts on mental health, which would be helpful in implementing support measures.

6

**Mental health first aid courses**, as well as online and offline counselling services, could be provided, along with instruction in the use of mobile phones and accessing weather alerts.

7



**Scientific research** is important to understanding the climate impacts on persons with mental illness. We are willing to support in-depth research, for example, by collecting district-level data.

# Conclusion

Scientific research confirms that the impact of climate change on persons with mental illness is not negligible. We must pay attention to the impact of climate change on mental health. We should strengthen mutual assistance programs, at least, to supplement inadequate existing policies. We hope to raise awareness of the problem through further exchanges with domestic and foreign counterparts.We encourage patients to seek assistance proactively, so that relevant policies and support services can be improved.

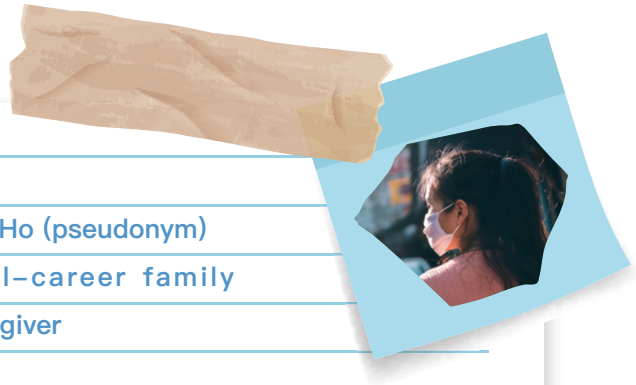
# Section 5 : Women

## Background

Gender inequality is a long-standing but neglected issue, and related debates are generally taboo.Women's perspectives on many issues have long been suppressed. We may not be aware of the particular impacts of climate change on women. We may not even consider it an issue, due to the lack of relevant research and data. We hope to look into women's career and family roles and explore the impacts of climate change on women.

## Methodology

A community dialogue was held on 24 May 2022, with a total of 16 people, the majority ofwhom were women,from 11 organizations, including women's groups, policy think tanks, social enterprises and environmental groups. The dialogue addressed six key questions: 1) The role of women in low-carbon transition; 2) Low-carbon transition from women's perspective; 3) Opportunities for women in low-carbon transition; 4) Obstacles that women face in the transition to low-carbon cities; 5) Current support services, policies and measures; 6) Possible solutions.



**Ms. Ho (pseudonym)**

**Dual-career family caregiver**

Ms. Ho (pseudonym) is a dual-career family caregiver. In addition to her part-time job, since her husband is a full-time worker, most of the responsibility for taking care of her elderly relatives and children falls on her. Prolonged hot and humid weather can easily make the elderly sick, disrupting her part-time work, and increasing her physical and psychological burden. Increasingly frequent and powerful typhoons have raised vegetable prices, and she has even considered growing vegetables herself to save costs.

# Analysis

Women are often disproportionately affected by climate change, according to a UN Women report.[30] Women's perspectives and interests are often ignored. Research also shows that gender–based violence, including physical, psychological and reproductive violence against women, becomes more prevalent under climate disasters, with far–reaching consequences in physical and mental health. In addition, many environmental initiatives, such as expansion of public transportation, carbon pricing, and carbon taxes, often ignore or even threaten the interests of women and vulnerable groups, leaving women negatively impacted. [31]

However, Hong Kong lacks relevant baseline research on this. Among theoccupational and family roles common to grassroots women, such as outdoor cleaning workers, occupational and home caregivers, and farmers, the climate impacts on women as home caregivers seems to have gone unnoticed. Under extreme weather, caregivers face possible food shortages and inflation, additional medical expenses, and psychological stress. Many caregivers in Hong Kong are domestic helpers from Southeast and South Asia, and their voices are often ignored. In addition to regulations on outdoor work under high temperatures as mentioned in anearlier section, ways of protecting and supporting caregivers and self–employed women should be further studied and implemented, including laws and policies, as well as financial and medical support.


Even with the reality of gender inequality and role stereotypes,women should not be just passive influencers, but leaders and active participants in climate action. But the key local policies, such as the government budget, school curricula and climate action plan, do not reflect women's perspective, which should have been incorporated.

In international negotiations, women's participation in policy formulation and decision–making is an issue that has received widespread attention. Women are often the organizers and educators of community–level climate action. At present, many women are teaching low–carbon concepts and practices; organizing groups to buy organic and low–carbon products;trading in second–hand goods;and running workshops and educational platforms. Furthermore, many women have already made significant contributions in promoting climate research and a low–carbon economy.We will not go into detail here.

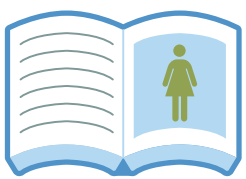
30 / UN Women, "Women and Sustainable Development Goals," UN Women Eastern and Southern Africa Regional Office, https://sustainabledevelopment.un.org/content/documents/2322UN%20Women%20Analysis%20on%20Women%20and%20SDGs.pdf

31 / Gloor, J.L., et al., "We Can't Fight Climate Change Without Fighting for Gender Equity," Harvard Business Review, 26 July 2022. https://hbr.org/2022/07/we–cant–fight–climate–change–without–fighting–for–gender–equity

# Recommendations

We propose the following initiatives and are pushing for solutions:

1



Key local policies, including the government budget, school curricula and climate action plans, need to reflect and integrate women's perspectives.

2

Strengthen the community medical and childcare services, and facilities for waste sorting and recycling, in order to reduce carbon footprint and provide more convenience for female caregivers.

3

Safeguard the rights and recognize the role of women cleaning workers in the recycling industry;Explore recycling as a professional career and enhance women's professional qualifications.


# Conclusion

The current Hong Kong Climate Action Plan does not discuss the role of women. We will continue to explore the role of women in climate change and a low-carbon transition. The discussion of climate justice and women inspires us to start thinkingmore aboutwomen'srelationship with climate change. Climate action and the transition to a low-carbon society must incorporate the perspective of women in order to be considered a just transition.

# Section 6 : The elderly and persons with chronic diseases, and welfare and healthcare workers

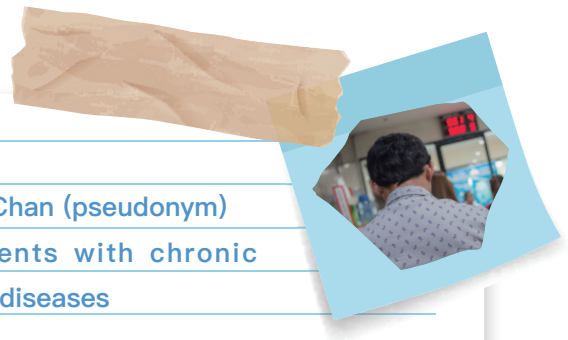
## Background

The elderly and persons with chronic diseases are highly exposed to extreme weather, which directly affects their health and safety. It also affects related service providers, namely welfare and community care workers. So far, only nine out of the 494 institutional members of the Hong Kong Council of Social Service (HKCSS) attend to climate impacts. There is an urgent need for us to better understand the climate impacts on vulnerable groups and the welfare and community care sectors, and to improve their role and capacity in providing necessary support, particularly for frontline welfare and healthcare workers who take care of the vulnerable groups every day.

With emerging climate impacts, welfare and healthcare workers are facing heavier workloads and greater pressure. Under the just transition principle, these groups should be included in discussions on climate action, and their voices should be heard.

## Methodology

In order to better understand the impact of climate change on the elderly and people with chronic diseases, and welfare workers and caregivers, CCIL held two community dialogues respectively, in collaboration with the Hong Kong Council of Social Service (HKCSS) on 21 July 2021, as well as with members of the community caregivers, environmental groups and academics on 4 August 2021. The July dialogue addressed three key questions: First, the impacts of climate change on social welfare organizations; Second,their needs under climate change; andThird, their roles and future participation in proposed climate change action. The August dialogue also addressed three key questions: First, public health issues caused by climate change; Second,the organisations' capacity to address health and medical risks caused by climate change; and Third, the actual needs of vulnerable groups in the face of climate change.



**Mr. Chan (pseudonym)**
**Patients with chronic skin diseases**

Mr. Chan (pseudonym) suffers from chronic skin disease and needs to rely on medication to control the condition. However, living in a subdivided flat, facing more and more frequent high temperatures and humid weather, his condition is up and down; it is difficult to stabilize, and he suffers more. Because of the high temperature in his room, he often dares not go there to rest, which affects his work and rest and the quality of his sleep.

# Analysis

The Intergovernmental Panel on Climate Change (IPCC)'s Sixth Assessment Report states that climate impacts are combined with structural poverty and social and economic inequalities, exacerbating the plight of persons with disabilities and the urban poor. The report notes that climate impacts are often multiple and interlocking. In addition, hospitalization for various diseases, heat stroke and climate–related accidents are increased. Salmonella outbreaks are closely linked to rising temperatures and increased levels of allergens such as pollen, leading to an increase in diseases such as asthma and allergic sinusitis. This poses increased health risks to the elderly and those with chronic diseases.

When local welfare and healthcare workers conducted community outreach, they found that heat stress was the most concerning among extreme weather impacts. It severely affects elderly people and persons with chronic diseases, who receive little support for relief and comfort. Issues exacerbated by hot, humid weather included food poisoning, skin allergies, respiratory problems, and in some cases, heart attacks and cardiovascular diseases, as well as mental illness. The growing population of mosquitoes and parasites due to increased precipitation and moisture also pose serious hygiene risks. The IPCC report also confirmed the correlation between heat stress and mortality rates, as well as the occurrence of health issues and hospitalization in Hong Kong. Patients' recovery is also affected.

These ongoing threats to the elderly and vulnerable also pose risks to welfare and healthcare workers. Their exposure to the same imminent threats should not be ignored.Unlike the disciplined services, such as the police and firefighters, who are obliged to provide emergency relief, frontline welfare and healthcare workers are not trained to deal directly with the problems vulnerable people face under extreme weather conditions. Such climate threats are a new dimension in their line of work. Without sufficient knowledge, training and support, these workers face greater pressure and a heavier workload. For example, they face requests for support from people affected by heat stress, typhoons, and rainstorms. Following climate events, their extra workloads can include cleaning and repair work at public facilities and the distribution of relief items, which are beyond their capacity and budget.

# Recommendations

Based on our analysis of the above issues, we propose and promote the following specific initiatives and solutions:

1. To adapt to the situation and support relief efforts, **additional equipment and training** are urgently required. Equipment could range from fans and hygiene packs, food relief, cash and coupons, to energy–saving ventilation systems. In addition, welfare and healthcare workers should also receive training in occupational safety and health (OSH), first aid, and even disaster relief and reduction. Additional budget and resources from the government would be needed to support all this equipment, training and services.

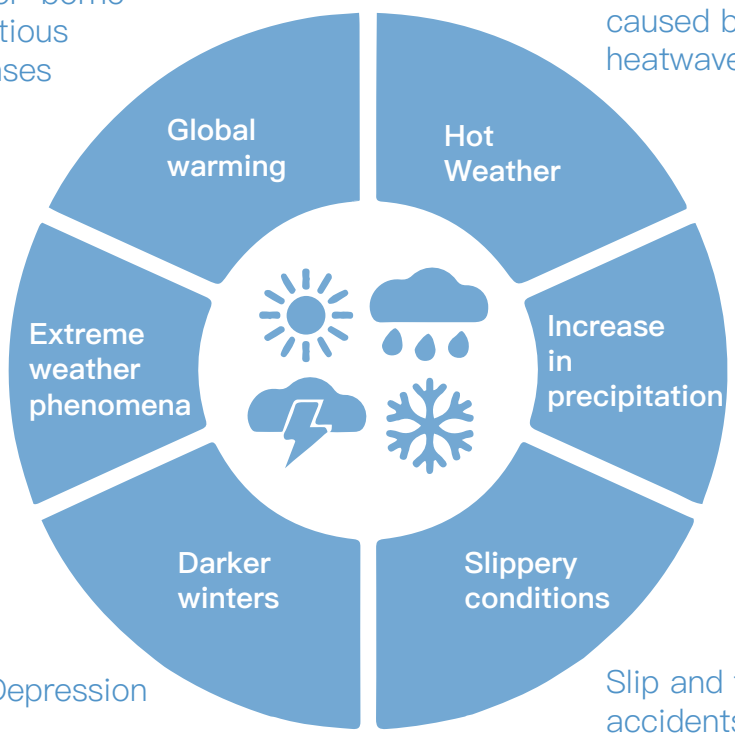
2. In addition, **much stronger protections** for welfare and healthcare workers should be considered, including counselling services, additional shelters and community medical support,additional human resources and other fringe benefits.

3. In order to make relief work more energy efficient, welfare and healthcare workers should also receive **training on balancing the needs for heat relief and energy saving**. They could then also lead climate change and energy saving education programmes in communities.

4. There is also a need to connect university researchers and medical practitioners with welfare and healthcare workers, and **enable regular sharing of data and information on the impacts of extreme weather on health**. This would help the community better understand, track and update research on the health impacts of climate change, especially in relation to vector–borne diseases, cardiovascular diseases and mental illness.

5. There is room for improvement in areas such as **retrofitting existing structures for climate resilience**, and considering climate impacts in maintaining mutual community care networks.

# Health impacts of climate change




Vector-borne infectious diseases

Health hazards caused by heatwaves

Accidents

Decrease in service reliability

Problems in water quality

Water-borne disease outbreaks

Moisture damage in building

Depression

Slip and fall accidents

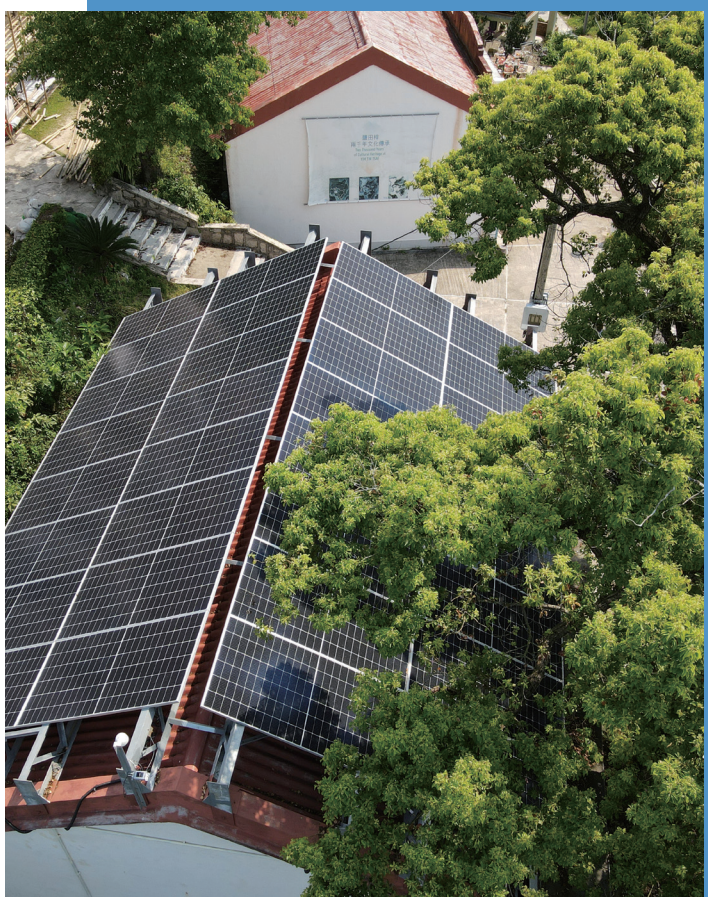
## Conclusion

Climate change impacts are escalating and emerging as imminent social and health threats to our communities, rather than simply an environmental threat. These impacts on vulnerable groups are too extensive for our welfare and community workers to cope with. Welfare and healthcare workers should be equipped with new skills, knowledge and resources to better tackle the climate change impacts that already affect their routine services

# Section 7：Renewable energy

## Background

The development of renewable energy is an important part of climate change mitigation efforts. The Intergovernmental Panel on Climate Change (IPCC)'s Sixth Assessment Report (WG3) pointed out that global solar and wind power generation technology is already mature. The costs of solar and wind energy in the past decade have fallen by 85% and 55%, respectively, while lithium battery costs have also fallen by 85%. The report predicts that the percentage of renewable energy could increase by 150% to 270% by 2030, compared to 2019, if countries move towards limiting temperature rises to 1.5 degrees Celsius. However, the Hong Kong Climate Action Plan 2050 published by the government in October 2021 pledged to increase the proportion of renewable energy in the power generation fuel mix to 7.5% to 10% by 2035 and 15% by 2050. Comparatively, Hong Kong's goals are too conservative. The measures are not specific enough.It will be difficult to achieve the goal of carbon neutrality by 2050 at the current pace of renewable energy development.



## Methodology

On 13 July 2022, a community dialogue was held with 11 people from 10 organizations, including academic circles, policy think tanks, enterprises and environmental groups. The dialogue addressed three key questions:First, the current status of renewable energy development in Hong Kong; Second, the elements necessary to enable an ideal renewable energy strategy; and Third,collaboration to develop feasible renewable energy solutions.

# Analysis

Hong Kong has the potential and capacity to substantially increase the proportion of renewable energy, including solar energy and wind power, in the city.Based on research conducted by local scholars and the Electrical and Mechanical Services Department years ago, potential solar energy can meet as much as 10% of Hong Kong's electricity demand, while potential onshore and offshore wind energy can reach 30%, both of which are much higher than the government's targets.Take the increasingly popular solar photovoltaic panels as an example. Since the introduction of a feed–in tariff scheme in 2018, the installed capacity had increased from only 1 MW to 267 MW by the end of 2021. Meanwhile, the strong financial sector in Hong Kong can facilitate more investment in the renewable energy infrastructure, which favours an uptake of renewable energy. The problem is that the government is not committed to vigorously developing this sector.

However, the two main power companies, CLP and HKE, monopolize the power grid, making it difficult for other investors to enter the market. The local renewable energy market only allows individual users to connect to the grid one by one, making it difficult to develop on a large scale. And, under the practice of outsourcing to those with the lowest tender price, the industry lacks professional standards, the quality of projects varies, and protections for workers are lacking in terms of compensation, benefits and training.

According to a survey by the International Renewable Energy Agency (IRENA),[32] there are currently 13 categories and more than 570 standards related to renewable energy technology in the world, nearly half of which are related to testing, sampling and analysis.The rest include products, equipment installation, fuel and power generation performance, etc. The two biggest sets of global standards come from the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC). The rest come from the European Union, the Asia–Pacific region, the Pan–American region, the Middle East and the African continent. There are also standards formulated by individual countries. The renewable energy industry in Hong Kong has just started. It is worthcontemplating how we canalign the industry's practices withthese global standards.

Renewable energy policies and practices in neighbouring countries and regions, including Singapore, Japan, Mainland China and Taiwan, are worthstudying. For example, Singapore is funding renewable energy research and development, and the promotion of relevant research capabilities. [33] Japan established the Renewable Energy Policy Platform (JREPP) [34] and the New Energy Development Organization (NEDO)[35]. Mainland China and Taiwan also have specialisedlaws and have set up relevant industry organizations to promote the industrialization of renewable energy.These examples prove the importance of government support. The establishment of specialised platforms to promote policy and technological innovation, as well as to promote investment financing and industry standards, are worthy of reference for Hong Kong.

32 /"International Standardisation in the Field of Renewable Energy," International Renewable Energy Agency (IRENA), March 2013. https://www.irena.org/publications/2013/Mar/International–Standardisation–in–the–Field–of–Renewable–Energy
33 / Energy Market Authority of Singapore (EMA), "Research Innovation, Enterprise and Deployment," EMA, https://www.ema.gov.sg/Industry_Energy_Research_and_Development.aspx
34 / Japan Renewable Energy Policy Platform (JREPP), "自然エネルギー政策プラットフォーム," JREPP, http://www.re–policy.jp/jrepp/about.html
35 / 国立研究開発法人新エネルギー・産業技術総合開発機構 (NEDO), https://www.nedo.go.jp/

# Recommendations

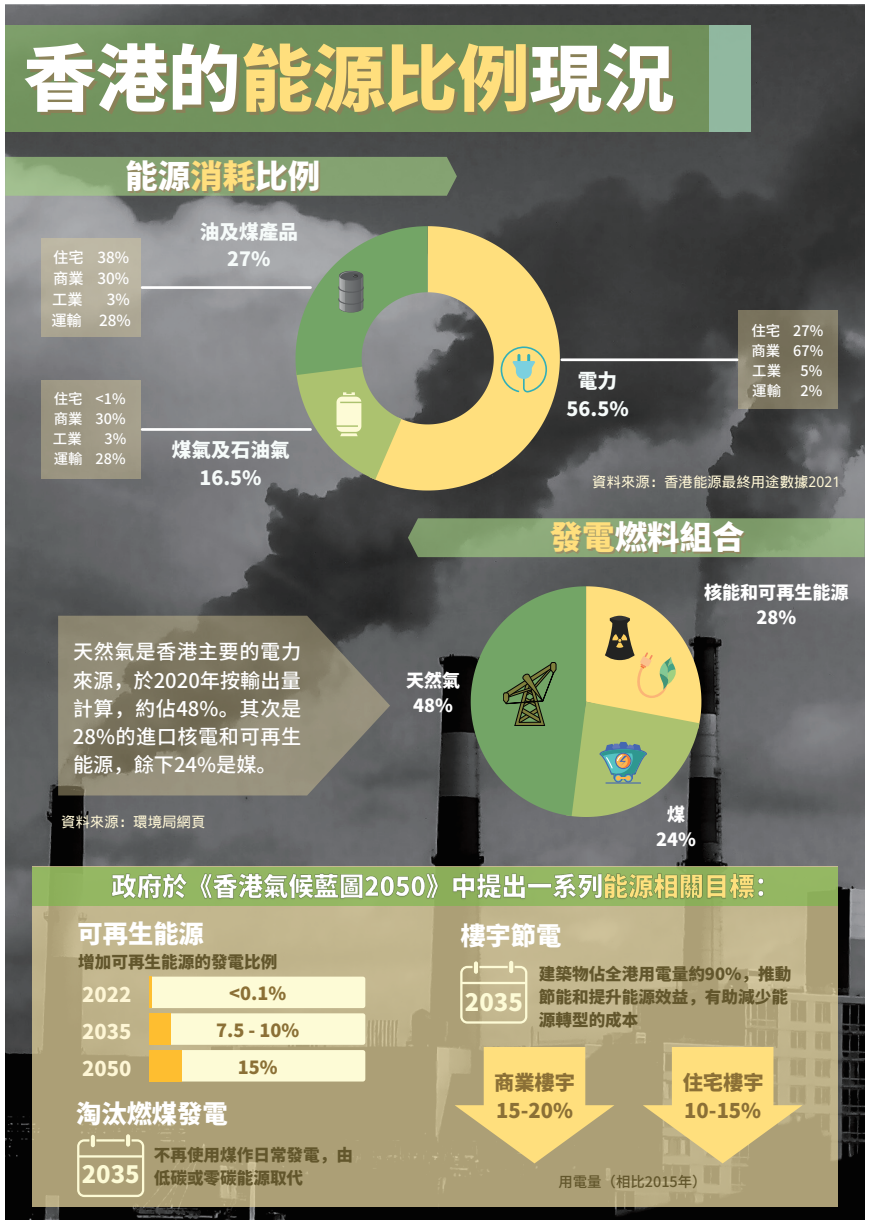
We propose and promote the following specific initiatives:

1 In terms of **policy**, the "Hong Kong Climate Action Plan 2050" should be publicly reviewed every five years, including setting annual renewable energy targets and ensuring a clear and specific carbon reduction pathway. With Mainland China's dual targets to hit peak carbon emissions by 2030 and carbon neutrality by 2060, the city must strengthen energy cooperation with the mainland in order to achieve carbon neutrality by 2050. Moreover, it should not stop at building energy efficiency, using rooftop solar panels and offshore windturbines, but should also explore the possibilities of floating solar panels on reservoirs and other renewable energy installations.

2 At the **institutional level**, building renewable energy infrastructure requires environmental impact assessments, including assessments of land and offshore water planning strategies, to mitigate or eliminate possible impacts on ecosystems, and to enhance climate adaptation and resilience. While solar photovoltaic panels generally have a long lifespan, manufacturers are obliged to properly recycle and dispose of them to comply with the principles of a circular economy, due to the toxic heavy metals contained in the panels.

3 At the **industry level**, we must enhance professionalism by establishing a renewable energy council that manages personnel training and qualifications certification, and formulates work guidelines. Universities can set up related degree programmes. Women and people from vulnerable groups can also be recruited for the renewable energy industry, and training should be extended to them. In addition, employees can set up trade unions to protect workers' rights.

4 **Technically speaking**, since the supply of renewable energy is usually constrained by meteorological conditions and therefore varies from time to time, it is necessary to make adjustments when connecting to the power grid to avoid unstable power supplies or the curtailment of a large amount of renewable energy. In addition to connection to the power grid, we should also consider other sources of power, especially the development of energy storage. Green hydrogen fuel is one of the most high–profile examples.




# Conclusion

The current development of renewable energy in Hong Kong is slow and lags behind other cities. In the long run, we should explore the possibility of opening up the monopolised electricity market in Hong Kong, allowing other private investors and the public to buildrenewable energy infrastructure and supply electricity.It will be necessary to adjust the power grid system to enhance the diversity of the energy supply. Settling power grid issues would be conducive to the sustainable development of renewable energy.

# Section 8 : Smart City

## Background

In December 2017, the HKSAR government released the first "Hong Kong Smart City Blueprint" (hereinafter referred to as the Smart City Blueprint), which aimed at "building Hong Kong into a world-class smart city". A number of development proposals have been put forward in six major areas: "Smart Travel", "Smart Living", "Smart Environment", "Smart Citizen", "Smart Government" and "Smart Economy". Thereafter, the first and second versions of Blueprint 2.0 were launched in December 2020 and April 2022, respectively. In fact, the rollout of the Smart City Blueprintis changing our lives, such as the fast payment system, "FPS", the addition of free public Wi-Fi hotspots, the "Smart Convenience" one-stop personalized digital service platform and other digital services, which are being popularized.

As for the "Smart Environment" that we are concerned about, the carbon reduction and energy saving targets of the Hong Kong Climate Action Plan 2050, announced in October 2021, were included as part of the Smart City Blueprint. In other words, the first Smart City Blueprint was released before the announcement of the carbon neutrality target of the Hong Kong Climate Action Plan 2050. It is necessary to re-examine the challenges we face in meeting the climate goals, and it may be necessary to update the Smart City Blueprint again, rather than directly incorporating the climate action plan.

The development of smart cities is gradually becomingcentral to our life, but it seems that civil society has not been a full participant in this process. As part of civil society, we are particularly concerned about how to participate in the construction of a "smart environment". However, the "Smart City Blueprint" does not reveal how the public can participate in the construction of a "smart environment".

## Methodology

A community dialogue was held on 19 August 2022, with a total of 14 people from 11 organizations, including members of government advisory bodies, the architectural planning sector, the information technology sector, social innovation groups, emergency relief and development organisations and environmental organisations.The dialogue concernedthree key issues: 1. Understanding smart cities; 2. The current status of smart city development in Hong Kong, and 3. Elements required to build an ideal smart city, as well as related services and policies.

# Analysis

The concept of a "smart city" is based on a belief in the capacity of technology to improve human life. In addition to creating wealth and jobs, smart cities are increasingly expected to address the growing climate crisis. In improving energy efficiency and promoting energy transition, smart cities can provide solutions and upgrades.They can also facilitate effective regulation and reform of the energy industry and penetrate the entire energy supply chain. Beyond the energy sector, climate change is shaping smart city planning in other ways. Data and modellingwill be at the heart of climate change mitigation and adaptation. At a time when many cities around the world are facing climate threats, smart cities can simulate crises such as flooding and extreme heat, and help reduce threats to infrastructure and critical services. Digital simulation and analysis can also shape smart city planning, especially in handling risks such as flooding, and making climate impacts manageable.[36]

However, the narrative of smart citiesappears to be dominated by governments, the tech industry, and corporations. At present, the technical standards of smart cities are mainly led and coordinated by the International Telecommunication Union (ITU), the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC)[37]. In addition, the Institute of Electrical and Electronics Engineers (IEEE) has developed technical standards for smart cities. The European Union[38], the United Kingdom[39], Japan[40] and Mainland China[41] allmake reference to these international standards, or formulate national standards of their own.

From solar-powered waste sorting and treatment systems, to smart buildings, smart transport,tele-medicineand the application of the Drainage Services Department's sponge city, smart city examples are related to data processing systems, automation systems and Internet of Things technology. We are currently applying relevant climate technologies, including sponge cities, urban climate maps, air circulation assessments, and wind corridor planning, etc., but information is limited to relevant professionals. It is difficult for ordinary citizens to access and understand.


Moreover, at present, we do not have specific mechanisms or resource allocations to ensure that vulnerable groups can make good use of technology. The digital divide has become one of the biggest challenges, especially due to the inability of vulnerable groups to keep up with the development of smart cities.

There are also concerns about data security and privacy. Smart cities are based on big data, but data collection, utilisation, processing and disclosure , as well as the frequent leakage of personal data in recent years, have become the most concerning issues for citizens.

36 / Acharya, D., "Smart, sustainable, urban: how smart city schemes can prepare Asia for climate change," Arup, 2022. https://www.arup.com/perspectives/smart-sustainable-urban-how-smart-city-schemes-can-prepare-asia-for-climate-change

37 /"IEC and ISO publish new smart city standard," IEC, 28 September 2020. https://www.iec.ch/blog/iec-and-iso-publish-new-smart-city-standard; "New smart city standards Joint Task Force established by ITU, ISO and IEC," ITU, 8 October 2020. https://www.itu.int/hub/2020/10/new-smart-city-standards-joint-task-force-established-by-itu-iso-and-iec/; "ISO 37122:2019 Sustainable cities and communities — Indicators for smart cities," ISO, May 2019. https://www.iso.org/standard/69050.html

38 /"Smart cities and communities/ technologies and services for smart and efficient energy use," European Commission Joinup, 2022. https://joinup.ec.europa.eu/collection/rolling-plan-ict-standardisation/smart-cities-and-communities-technologies-and-services-smart-and-efficient-energy-use

39 /"Smart city standards and publications," British Standards Institution, 2022. https://www.bsigroup.com/en-GB/smart-cities/Smart-Cities-Standards-and-Publication/

40 /"New International Standards for Framework for Development and Operation of Smart City Infrastructures Issued," METI, 8 July 2021. https://www.meti.go.jp/english/press/2021/0708_002.html

41 /"《智慧城市标准化白皮书（2022 版）》正式发布，"中国电子技术标准化研究院，2022 年 8 月 3 日。http://www.cesi.cn/202208/8649.html

# Recommendations

Smart cities can certainly improve citizens' ability to mitigate, adapt and recover from climate change, and reduce the impacts on vulnerable groups and ordinary citizens. However, we also make the following recommendations, which must be prioritized when building smart cities

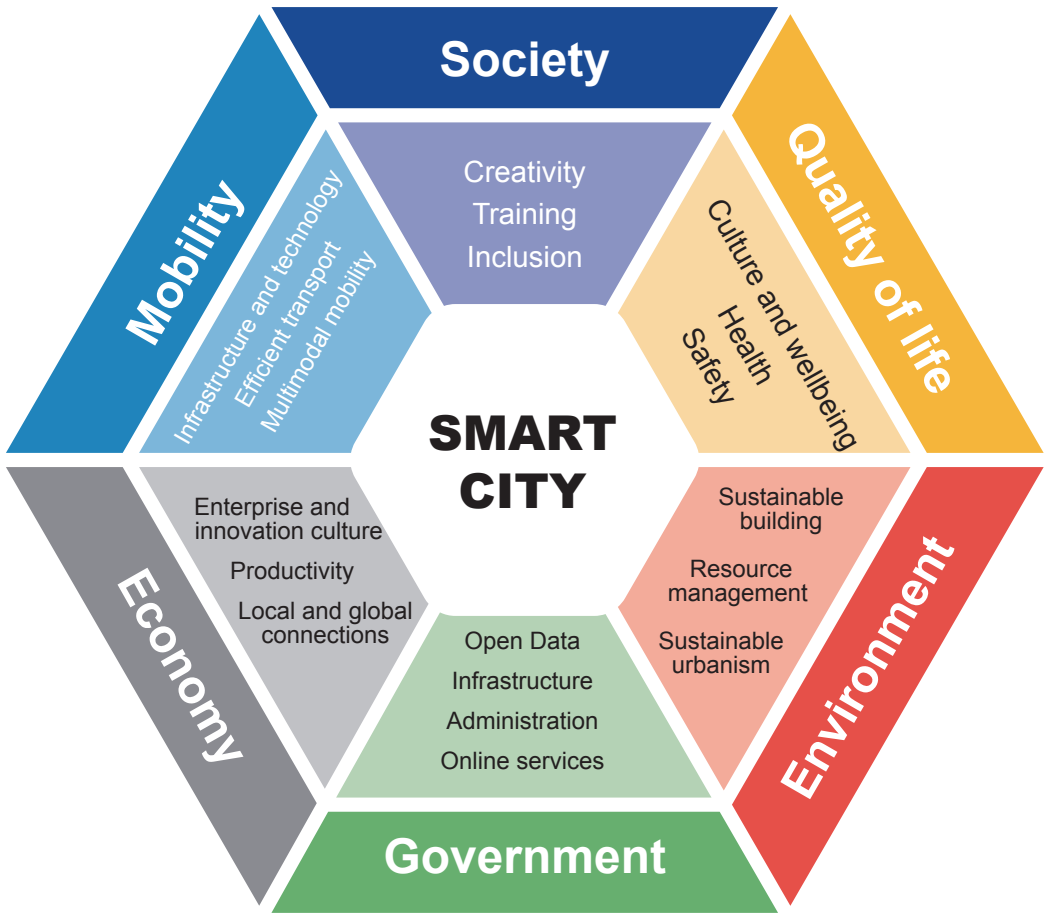
1 **Ensuring public participation in smart city development and strengthening education**: We agree on the importance of public participation, but there is currently very little public awareness, let alone participation, in the development of smart cities. Strengthening public education, including learning about and discussing smart cities in school curricula, setting up student "citizen scientists" programs, and educating the public to use smart technologies to obtain climate and carbon footprint information, etc., is critical to public participation.

2 **Ensuring that vulnerable groups can access and understand key climate information**: Some of the technologies mentioned above may generate complex climate and carbon footprint information.However, transforming it into content that the general public can understand and use, improving users' experience, and communicating it to vulnerable groups, will be key challenges for smart cities.

3 **Invest in developing inclusive smart technologies**: Communicating climate research data to vulnerable groups through technology is a key step in achieving climate justice. There are anumber of ways to address climate change by improving existing technologies, such as the Care-on-Call Service, to meet the needs of more vulnerable groups. Investment and financing in this area has become indispensable.

4 **Privacy requirements must be balanced when developing data-centric cities**: Data security is an important issue for smart cities. Achieving energy saving and carbon reductionshould be balanced with the need to protect data and privacy. The European Union has already implemented a General Data Protection Regulation and has become a global model. We must also pay attention to whether similar personal data protection regulations are implemented and strengthened in Hong Kong, and effectivelyexecuted.

5 **Guarantee the right of the public to monitor and evaluate the effectiveness of smart cities**: To measure whether the development of smart cities achieves the goal of carbon emissions reduction, we need to collect baseline data, develop a long-term monitoring mechanism, and publish the data regularly. This will help facilitate public tracking and evaluation.




Credit: Antonio Grasso

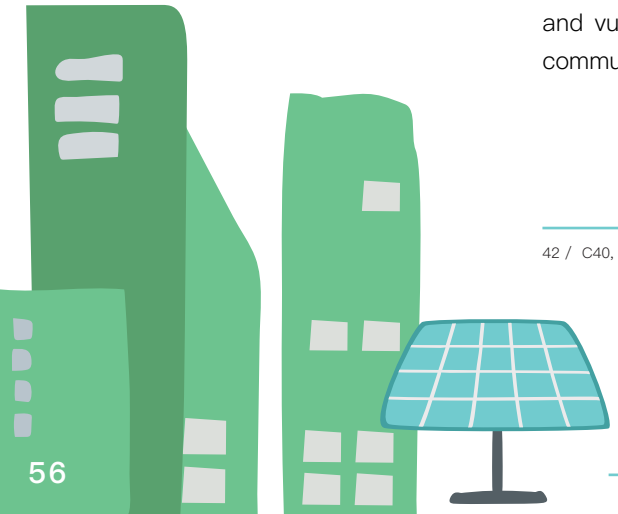
# Conclusion

Cross-sectoral civil society dialogue on smart cities is of great significance in enhancing the understanding of smart cities. We should especially research whether so-called environmentally friendly and low-carbon smart cities conform to the principles of climate justice. Smart cities should be people-oriented, and "developed with the wisdom of cities". To make a smart city develop sustainably, comply with climate justice, and address climate change, we must put public participation at its core.

# Conclusion：**Hong Kong's Civil Society Calling for Climate Justice**

Climate change has a wide range of impacts. Even though people might feel differently about such impacts, they realise the importance of collective action.We hope that, together, we can strongly raise our voices.We are calling on the whole society to scale up our climate actions, and make climate change a key element in government and business operations to achieve a climate-just society.

In 2022, Hong Kong signed the C40 Equity Pledge.[42] The city pledged its climate actions will be equal, inclusive, and community-based. Whether these principles will be implemented remains to be seen. How should Hong Kong achieve a just transition, and how can we integrate the perspectives of women and vulnerable groups in mitigating and adapting to climate change? How can we design our cities and communities to promote the use of renewable energy and improve energy efficiency?



42 / C40, "Equity Pledge," 訪問日期為 2022 年 6 月 28 日。https://www.c40.org/accelerators/equity-pledge/


> **"It seems like a dream to achieve climate justice and a just transition in Hong Kong. I realise that we still have a lot to do, and we need to connect people with different positions and interests to promote it."**
>
> **A Community Dialogue Participant**

## Civil society puts forward a vision for a just transition

On 17 October 2022, CarbonCareInnoLab held the last community dialogue of this project. We invited people who had participated in the previous community dialogues. A total of 15 people, who came from 12 organizations, including government advisory bodies, social welfare groups, humanitarian aid organizations, workers' organizations, information technology organizations, policy think tanks, enterprises and environmental groups, shared their follow-up actions at the individual and institutional levels. They reviewed the outcomes of the dialogues, including plans for cross-sector partnerships, and then shared insights on how government, business, and civil society can take the lead in driving a just transition. They also discussed the barriers to a just transition, and proposed a future vision for a climate-just society.

The government's lack of aggressiveness in reducing carbon emissions means it will certainly fail to achieve carbon neutrality by 2030, and to effectively mitigate climate disasters. This causes concern among civil society groups. Coping with climate crises requires input from people of all walks of life.Cross-sectoral partnerships are expected to address climate issues and formulate strategies to realisea just transition. Most importantly, Hong Kong's civil society has expressed a shared vision for the city of the future. We expect climate actions to be just and inclusive. To achieve this, we need all-round cooperation between the government, the business community and all sectors of society. From the formulation of policies to the implementation of measures, all sectors of society, especially women and vulnerable groups, should be involved.

We summarise the results of the community dialogues to identify climate actions for women and vulnerable groups into seven main areas:**protecting theirwell-being, stabilising the cost of living, guaranteeingaccess to information, adjusting work environments and arrangements, improving transportation and community support and services, and promoting a green lifestyle**. We put forward the following specific policy recommendations and measures to the three major stakeholders, namely the government, the business sector and the private sector.

### Protect well-being

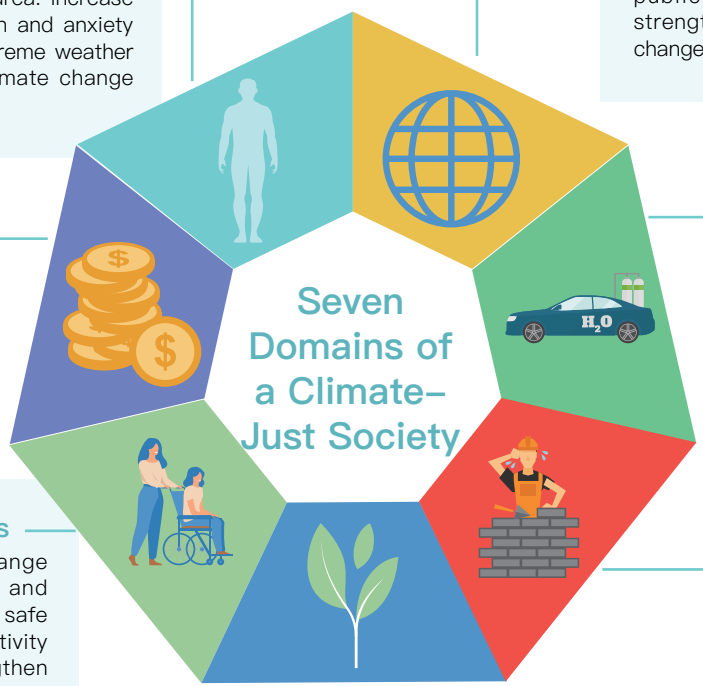
Improve indoor air circulation and temperature, enhance ventilation, and improve the adaptability of vulnerable groups; provide drinking water and improving clothing for outdoor workers; expand per capita living area. Increase space for movement and reduce depression and anxiety in extreme weather; raise awareness of extreme weather among healthcare workers; strengthen climate change education

### Guarantee access to information

Supportvulnerable groups in accessing information on extreme weather; enhance public education on climate change; strengthen public education on climate change; promote youth participation

### Stabilise the cost of living

Subsidise living expenses, such as electricity bills and medical expenses, for vulnerable groups, especially grassroots women living in subsidised flats




### Improve transportation

Increase identification facilities for the disabled to reduce risks in crossing streets; invest in electric vehicles and hydrogen fuel vehicles

### Improve community support and services

Strengthen community welfare and climate change adaptation training for caregivers; add Braille and audio maps to assist the visually impaired; create safe escape spaces for wheelchair users; increase activity space to reduce depression and anxiety; strengthen mutual assistance in the community and support among neighbours in disaster prevention and avoidance; engage all walks of life equally through community dialogue; promote public participation in smart city planning

### Adjust work environments and arrangements

Establish more shelters for relief from heat stroke; arrange flexible working hours and venues for persons with disabilities; regulate work arrangements under extreme heat

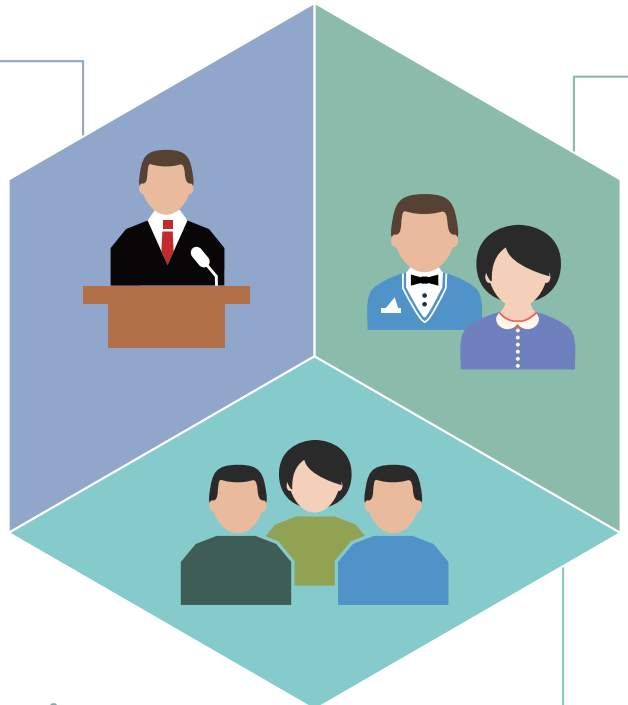
### Promote green lifestyle

Promotea circular economy and biodiversity conservation, as well as ecosystem-based adaptation

# Key Stakeholders for a Climate – Just Society

## Government

- Strengthen the cross–departmental response to extreme weather and disasters
- enhance the ability to support disaster prevention in extreme weather
- improve the early warning system for vulnerable groups
- formulate regulations for working in extreme heat; build escape routes for persons with disabilities
- strengthen climate change education, especially the awareness of extreme weather
- incorporate women's perspectives in policy formulation of climate change and low–carbon transition
- vigorously develop renewable energy
- support climate research and innovation
- explore the potential of smart cities



## Business

- Enhance knowledge on climate change
- provide drinking water and improved clothing for outdoor workers
- improve alarm systems;provide building escape routes for the disabled
- improve work arrangements in extreme weather to protect outdoor workers and persons with disabilities
- invest heavily in renewable energy, climate research and innovation

## Civil Society

- Commit to climate disaster relief, publicity and education
- raise public climate awareness
- actively participate in climate policies and initiatives to improve renewable energy goals
- engage all walks of life equally through community dialogue
- integrate perspectives of women and vulnerable groups
- participate in smart city planning

# Annex 1: **Climate Justice and Just Transition**

UN Secretary-General António Guterres noted: "Climate change is happening now and to all of us. No country or community is immune. And, as is always the case, the poor and vulnerable are the first to suffer and the worst hit."[43]

**"Climate Justice"** is not just a term, but a movement.[44] Climate Justice points to the disparate social, economic, health and other adverse impacts of climate change on the poor and vulnerable groups. Many climate victims are those who are least responsible for greenhouse gas emissions, such as low-income communities, people of colour, indigenous peoples, the disabled, children and the elderly, grassroots workers, women, and people living in developing countries with low emissions per capita. They are more vulnerable to climate hazards such as storms and floods, wildfires, heat waves, air pollution, water and food shortages, and eroded coastlines.

Therefore, people have begun to attach importance to **climate justice**. They hope to create a better future for present and future generations by incorporating human rights into long-term climate mitigation and adaptation strategies, addressing the climate crisis and the associated social inequalities.When we implement climate actions, we stressthe prioritization of a green transition of the economy and the well-being of vulnerable groups.

Regarding **climate mitigation**, the Paris Agreement adopted by the United Nations Climate Change Conference in 2015 proposes to "transform the labour force with justice, taking into account the development priorities set by the country, and create decent jobs and high-quality jobs".[45] The term "just transition" originated with the American labour movement in the 1970s and 1980s. It advocatedstrengthening regulations, upgrading and transforming polluting industries, and protecting employment opportunities for labourers, as well as community support services such as retraining for workers.

This was the first time that the phrase **"just transition"** appeared in a United Nations climate change-related convention. It means that industrial transformation as part of climate mitigation strategy must ensure the well-being of workers.In the transition from polluting technologies to clean energy, protection ofworkers' employment, work environment and health,all along the supply chain, must be guaranteed.

As for **climate adaptation**, in their 2006 article "Fairly Adapting to Climate Change"[47], the authors Paavola and Adger emphasized the need to consider social vulnerability, rather than regarding adaptation as a mere technical issue. They stressed the importance of fair participation in climate adaptation planning and implementation, especially to address institutional injustice that causes climate disasters.

When it comes to a just transition, we must pay attention to three concepts: **procedural justice**, distributive justice and restorative justice. Procedural justice means that those affected by climate disasters are able to participate fully in the decision-making process. They should have the ability to shape the adaptation process, and ensure that governance structures for adaptation are in place.

**Distributive justice**, on the other hand, refers to the pros and cons of distributive outcomes, dealing with the questions of "Who benefits and how?" and "Who will be left behind?" Equitable adaptation outcomes takes into account the uneven distribution of climate risk and adaptive capacity, historical responsibility for climate change, and structural and institutional inequities.

**Restorative justice** focuses on the needs of those affected by mitigation and adaptation measures and vulnerable groups. It restores them to their original position prior to any damaging activity. The importance of restorative justice is that it can be a proactive policy approach to preventing harm and conflict resulting from mitigation and adaptation measures if applied and accounted for at the outset.

Thus, through realising **procedural justice**, **distributive justice** and **restorative justice**, a just transition will promote a low-carbon and climate-resilient economic transition, while ensuring the protection of workers, women and vulnerable groups. Climate actions must be planned and executed in a way that benefits all and does not marginalize anyone.

43 / Henry, M. S., Bazilian, M. D. and Markuson, C. "Just transitions: Histories and futures in a post-COVID world." Energy Research & Social Science, 68(2020). 101668. DOI: 10.1016/j.erss.2020.101668.
44 / Simmons D., "What is 'climate justice'?" Yale Climate Connections, 29 July 2020. https://yaleclimateconnections.org/2020/07/what-is-climate-justice/
45 / United Nations Framework Convention on Climate Change (UNFCCC), "The Paris Agreement," Access on 8 July 2022. https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement
46 / 『公義轉型』被列為《巴黎氣候協議》的一項關鍵原則：『考慮到勞動力公義轉型的必要性，並根據國家確定的發展優先事項創造體面和高質量的工作。』（請參閱 https://unfccc.int/files/essential_background/convention/application/pdf/english_paris_agreement.pdf）
47 / Lager, F., Adams, K. M., Dzebo, A., Eriksson, M., Klein, R. J. T. and Klimes, M. A Just Transition for Climate Change Adaptation: Towards Just Resilience and Security in a Globalising World. Adaptation Without Borders Policy Brief, 2021, 2, Stockholm Environment Institute (SEI).

# Annex 2: **Climate Community Dialogue Timeline**

| | Annex 2: Climate Community Dialogue Timeline | Date |
|---|---|---|
| 1 | Climate Change Impacts on Subdivided Housing Residents | 2020 / 09 / 11 |
| 2 | Environmental Education and Community Collaboration | 2021 / 07 / 21 |
| 3 | Impacts of Climate Change on Existing or Advancing Health Services for the Elderly, Convalescent and Low-income Households | 2021 / 08 / 04 |
| 4 | Climate Change Adaptation for Cleaning Workers, Waste Collection Workers and Security Guards | 2021 / 12 / 08 |
| 5 | Climate Disaster Response for People with Disabilities | 2022 / 02 / 17 |
| 6 | Climate Disasters and Mental Health | 2022 / 04 / 12 |
| 7 | The Role of Women in a Just Transition | 2022 / 05 / 24 |
| 8 | Crises and Opportunities for Renewable Energy Development in Hong Kong under a Just Transition | 2022 / 07 / 13 |
| 9 | Smart Cities and a Just Transition | 2022 / 08 / 19 |
| 10 | Moving Forward from Community Dialogue | 2022 / 10 / 17 |

# Annex 3: **Community Dialogue Participants**

All names below are not listed in order

### First Community Dialogue：

- Hong Kong Platform Concerning Subdivided Flats
- Christian Care for the Homeless Association
- Caritas Mok Cheung Sui Kun Community Centre
- Hong Kong Sheng Kung Hui Lady MacLehose Centre
- Department of Social Work, The Chinese University of Hong Kong
- Entrepreneurship Initiative, Lingnan University
- Institute of Future Cities, The Chinese University of Hong Kong
- Mr. Jordan Ka Ho Pang, Central and Western District Councillor
- Mr. Felix HiuLaam Chow, Sha Tin District Councillor
- Ms. Siu LikWai, Eastern District Councillor
- Dream Impact
- Health in Action
- Greeners' Action
- 350HK
- Secure Information Disposal Services Ltd.

### Second Community Dialogue:

- Hong Kong Council of Social Service (Dialogue Partner)
- Hong Kong Youth Association
- Hong Kong Workers' Health Centre Ltd.
- New Life Psychiatric Rehabilitation Association
- Oxfam Hong Kong
- The Boys' and Girls' Clubs Association of Hong Kong Tai Wai Youth Integrated Service Centre
- Greeners' Action
- Tung Wah Group of Hospitals
- Green Earth
- SikSik Yuen (religious charitable organization promoting Confucianism, Buddhism and Taoism)
- Kowloon City Baptist Church Neighbourhood Elderly Centre
- DACARS Ltd.
- Hong Kong Association for the Disabled and Health
- Fu Hong Society
- International Crossroads Association Ltd.
- Islands Women's Federation Limited
- Yan Oi Tong (charitable organization)
- Engineers Without Borders (Hong Kong) Co., Ltd.
- Hong Kong Sheng Kung Hui Welfare Association Ltd.
- Hong Kong Playground Association
- International Cultural Exchange Co., Ltd.
- Centre for Community Cultural Development, Ltd.
- Hong Kong Lutheran Society

### Third Community Dialogue:

- Hong Kong Society for Rehabilitation
- Christian Concern for the Homeless Association
- Stewards
- St. James' Settlement Wan Chai District Elderly Centre
- Oxfam Hong Kong
- Hong Kong Society for Community Organization
- Hong Kong Red Cross
- Health in Action
- Civic Exchange
- Institute of Future Cities, The Chinese University of Hong Kong
- Central and Western District Council
- Clean Air Network

### Fourth Community Dialogue:

- Hong Kong Women Workers' Association — Cleaning Workers' Union
- Hong Kong Buildings Management and Security Workers General Union
- Hong Kong Food and Environmental Hygiene Department Staff Rights Union
- LBS Environmental Services
- Mil Mill
- Missing Link
- Top Line Road Safety Engineering
- Catholic Diocese of Hong Kong
- Centre for Community Care
- Health in Action
- Jockey Club Design Institute for Social Innovation
- Picker's Link
- Waste Picker Platform
- Environmental Education and Ecological Conservation Workers' Union
- Food Grace
- The Hong Kong Jockey Club



Disaster Preparedness and Response Institute

### Fifth Community Dialogue:

- Hong Kong Joint Council for People with Disabilities
- Hong Kong Federation of Handicapped Youth
- Hong Kong Blind Union
- Hong Kong Society for the Deaf
- Dialogue in the Dark
- Hong Kong Red Cross

### Sixth Community Dialogue:

- Concord Mutual-Aid Club Alliance
- New Life Psychiatric Rehabilitation Association
- The Mental Health Association of Hong Kong
- The Stewards Take Your Way Clubhouse
- Society for Community Organization
- Urban Acupuncture Hong Kong

### Seventh Community Dialogue:

- Hong Kong Federation of Women's Centres
- Hong Kong Women Workers' Association
- Hong Kong Food & Environmental Hygiene Department Staff Rights Union
- Globalization Monitor
- HER Fund
- Centre for Social Innovation Studies, Hong Kong Institute of Asia-Pacific Studies, Chinese University of Hong Kong
- EatALL
- HATCH
- Hong Kong Momtrepreneurs
- Civic Exchange
- Fair Lady Hong Kong

### Eighth Community Dialogue:

- Department of Building Environment and Energy Engineering, The Hong Kong Polytechnic University
- Department of Geography, Asian Energy Research Centre, Faculty of Social Sciences, Hong Kong Baptist University
- Civic Exchange
- Solmunity
- Greenpeace
- WWF Hong Kong
- RH Consultant Knowledge Sharing Platform
- The Hong Kong and China Gas Company Limited
- York Joint Design & Construction Co., Ltd.

### Ninth Community Dialogue:

- Strategy Sub-committee of the HKSAR Government Council for Sustainable Development
- Green Architects
- The Hong Kong Institute of Planners
- Urban Acupuncture Hong Kong
- The Hong Kong Polytechnic University Jockey Club Design Institute for Social Innovation
- Internet Society Hong Kong
- Hong Kong Red Cross
- Friends of the Earth (Hong Kong)
- Tai O Sustainable Development Education Workshop
- Food Grace
- 350HK

### Final Community Dialogue

- Strategy Sub-committee of the HKSAR Government Council for Sustainable Development
- Hong Kong Sheng Kung Hui Lady MacLehose Centre
- Hong Kong Food and Environmental Hygiene Department Staff Rights Union
- Internet Society Hong Kong
- Centre for Community Care
- Civic Exchange
- Hong Kong Red Cross
- WWF Hong Kong
- Globalization Monitor
- Urban Acupuncture Hong Kong
- EatALL
- 350HK

# Annex 4: CCIL Submission to "2018 Talanoa Dialogue", United Nations Climate Change Secretariat (March 2018)

## Talanoa Submission: Promoting and supporting action on the part of sub–national entities

**By John Sayer, CarbonCare InnoLab**

Here's a story: there was a time when around half the population of China still fell below the poverty line. The Central Government recognized that the benefits from the massive growth of the Chinese economy were concentrated in the big cities and rich provinces in the East of the country. In response, the government did not take a one–size–fits–all approach to poverty reduction. Instead, it twinned the wealthiest areas in the East with the poorest areas in the West, asking these high growth areas to devise plans for finance, investment, technology transfer and capacity building to help them to move out of poverty. [48]

Capacity and responsibility to contribute to the goals of the Paris Climate Agreement are also unevenly distributed within nations as much as between nations.

On the issue of action against climate change, the Paris Agreement recognizes the important role of sub–national entities, particularly cities, in raising the ambition level of parties, but beyond this recognition, offers little tangible advice or support.

In order to support these important agreements on the role of non–parties, the UNFCCC and Parties to the Paris Agreement should devise ways to formally recognize, measure, facilitate and reward contributions of sub–national entities in all areas of ambition within the Paris Agreement. This should include actions on mitigation, adaptation, finance, capacity building, and technology development and transfer.

This is particularly important for sub–national entities with high–degrees of autonomy which may result in separate environmental, economic or legal systems, separate legislatures, independent budgets, autonomous overseas aid programmes, or other types of special status which separate day–to–day administration from that of their central governments. Such territories can and should be encouraged to make additional contributions to all aspects of the Paris Agreement which build on and contribute to national targets, including the NAPs and NDCs of Parties.

As C40 Cities has stated: "Without action by cities the Paris Agreement cannot realistically be delivered. The business–as–usual path of C40 cities' emissions needs to 'bend' from an increase of 35% by 2020, to peak at only a further 5% higher than current emissions."[49]

Recent studies by C40 Cities indicate that when we include consumption of goods from developing countries, affluent cities emit 60 percent more GHGs than current calculations indicate.[50]

Incentives and recognition are also important for sub–national entities that have both responsibility and capacity greater than the average within their nation. Parties to the UNFCCC should be given the

encouragement and the tools to apply the concept of "common but differentiated responsibility" within their territory as well as beyond it, by applying the principles of 'responsibility' and 'capacity' related to climate action as laid out in the study and methodology of "Fair Shares."[51]

Support to sub–national efforts can also make an important contribution to the achievement of a just transition. City and local governments administer smaller populations than national governments and are frequently more responsible for front–line delivery of essential services. It is often the case, therefore, that city and regional administrations are more aware and more responsive to the immediate social impact of environmental policies in areas such as employment, equal opportunities, social protection and marginalised communities. They are therefore more mindful of the need to build in measures for a just transition with their communities. Enabling, recognising and monitoring climate action at city and local level is therefore an important contribution to promoting a just transition.


48 / Wang, Li and Ren. "The 8–7 National Poverty Reduction Program in China: The National Strategy and Its Impact." Institute of Agricultural Economics Chinese Academy of Agricultural Sciences. The International Bank for Reconstruction and Development / World Bank. Washington. 2018.
49 / C40 Cities, ARUP. Deadline 2020: How cities will get the job done. C40 Cities / Arup. London. 2016
50 / C40 Cities. 2018. Consumption–Based GHG Emissions of C40 Cities. London. March 2018.
51 / Holz, C., Kartha, S. &Athanasiou, T. "Fairly sharing 1.5: national fair shares of a 1.5 ° C–compliant global mitigation effort." International Environmental Agreements (2018) 18: 117. https://doi.org/10.1007/s10784–017–9371–z and; Climate Equity Reference Project. "Fair Shares: A Civil Society Review of INDCs." Stockholm. November 2015

This submission was prepared by John Sayer with Carbon Care Asia / CarbonCare InnoLab, Hong Kong.

## Enabling policies can provide more formal support to sub–national action on the Paris Agreement. To achieve this, UNFCCC should work with Parties to:

1

Adapt the principles behind of common but differentiated responsibilities to encourage, resource and enable Parties and non–parties to apply these principles to sub–national jurisdictions within each country, taking account of different levels of development and historical emissions in different geographical areas. This can assist Parties in the achievement of their contributions to the Paris Agreement, more effectively deploying climate resources from one area to another within the country, and ensuring each part of any nation contributes to the best of its capacity to higher ambition levels forto the nationally determined contribution.

2

Develop metrics to measure performance of cities, provinces, states and regions against both national NDCs, as well as against the targets identified by the IPCC as necessary to achieve the goals of the Paris Climate Agreement, most specifically limiting global average temperature rises to well below 2° C and pursuing efforts to keep rises to 1.5° C.

3

As part of national plans, develop methods to monitor, report and verify the contribution of sub–national entities to action and support on climate finance, technology exchange, capacity building and other forms of assistance to other places, as set out in the Paris Agreement.

4

Ensure transparency and accountability on the part of sub–national entities to enable and ensure their full contribution to the goals of the Paris Agreement by developing Monitoring, Reporting and Verification (MRV) mechanisms in ways which can be applied to sub–national jurisdictions.

# Annex 5: **Infowall from Community Dialogue** (Selected)


# Annex 5: **Infowall from Community Dialogue** (Selected)



因氣候變化而流離失所的人中有八成是女性。
2013年颱風海燕侵襲菲律賓，六成死亡人數為女性。
中大未來城市研究所研究發現，連續出現5天熱夜更增加6.66%的死亡風險，而女性及長者更受影響。


極端天氣的影響
氣候變化正在影響我們的社區
水循環所引致的影響
溫度上升所引致的影響
對經濟的影響
更頻繁的大雨
更頻繁的河水氾濫
來自河流和海洋的洪水會破壞房屋，社區和企業
更炎熱乾燥的夏天
海平面上升
較高的溫度使海洋升溫，並使冰和冰川融化，導致海平面上升。這會淹沒沿海房屋和社區
山火
增加死亡風險
空氣質素變差
炎熱天氣會使空氣質素惡化，會特別傷害患有哮喘和心臟病的人
炎熱天氣日數增多
使更多的人容易生病
疾病
溫度升高會令海產和食水產生更多細菌，並可能使人患病。蟲子和蚊子引起的疾病可能增加
極端天氣
像暴風雨這樣的極端天氣會損壞房屋並降低地方安全性
經濟
環境的變化使人們花費更多金錢並影響工作
糧食
高溫、乾旱和昆蟲會損壞農作物。這會影響市場上出售的食物及其價格

PARIS WATCH

CARBONCARE INNOLAB
低碳想創坊